The Builder.

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A New Book on Architectural Æsthetics.

IF we go so very wrong on the subject of architecture in the present day, it is, at all events, not for want of writing and talking about it. Here is a book of nearly 500 pages* devoted to the consideration mainly of the right theory of architecture, what it means and how it is to be pursued. It is, perhaps, doubtful, whether the writing of any number of treatises on this subject will materially influence the practice of architecture. If theories of the art are propounded in literary form, however, it is to be desired that they should be recommended if true, and criticised if false. Now, a good deal that Mr. Eidlitz propounds is true, and some of it is put in an original and thoughtful manner, which merits consideration.

It is not necessary to go into that part of the author's work in which, for the fiftieth time, the view which regards architecture as a mere assortment of ancient styles is denounced. It has been denounced in these columns over and over again, as well as by well-known individual writers in separate treatises. There are a large number of practising architects at the present moment who would fully join in the denunciation; perhaps the majority of those who are of good status in the profession. But such is the force of circumstances and of habit, and of the necessity of making a living, that the very men who denounce the literal reproduction of past styles in theory adopt it in practice; and in many cases their employers would have nothing to do with them if they did not. In some of his remarks the author is hardly fair to the prevalent principles of architects. "Buttresses where there is no lateral pressure, arches of lath and plaster where there is no abutment, columns which support nothing," are not really very common occurrences now with architects of any professional standing. But, for all that, there is a point in the question,—"How many are there who are willing to forego a tower where it is not needed either physically or æsthetically?" Not many, it is to be feared; and for this kind of tendency the competition system is in great measure responsible. This system is sharply condemned in another part of the book, on other grounds, to which this one might have been added.

The central idea of Mr. Eidlitz's preaching, however, so far as architecture is concerned, is the necessity of working from within outwards, if we may so say, in maturing an architectural design, and the paramount importance of constructive knowledge and constructive stability and fitness. "The modern architect," he observes, "but rarely refers an architectural composition to the idea which has given rise to it." and this is a very comprehensive statement of the radical deficiency which is at the root of most of the failures of modern architecture, and which, though not intentionally on the part of any one, is fostered by the system (if system it can be called) of architectural education in England. A pupil learns the style of his office, and the style of his office is the style in fashion at the time. His ambition, if he is a hard-working youth, and desirous to excel, is to make as many sketches as possible of old buildings in the approved style; and his first object when he has a building to carry out himself is to turn these picturesque sketches to account, by introducing them in his elevations and perspective view. Thus, in designing a house, the idea predominant in his mind is not that of a dwelling with so many rooms in convenient relations to each other, and adequately lighted, warmed, drained, and ventilated. The first idea is that of an exterior exhibiting the details and incidents peculiar to the favourite style, within which it is hoped the required rooms and sanitary provisions may be arranged. There may be a feint of doing the plan first, but the real object is the picturesque (or supposed picturesque) exterior.

In reference to this part of the subject, Mr. Eidlitz does good service in pointing out the misleading influence of what is usually called "taste" on the minds of the architects and those who profess special interest in architectural art. What he says is too true; the architect's *taste*, that is, his acquired prejudice in favour of a certain style of the past, "takes the place of reasoning, of study, of knowledge, of judgment, of facts, of ideas, of everything which is a motive of action with other men; and it is his taste which has done more injury to architecture than any or all other causes combined. . . . The architect wilfully abandons the experience of centuries" [*i.e.*, we presume, practical experience] "not because he denies its value, but because he dislikes the use made of this experience by others." A practical sanitarian builds a well-constructed but ugly house; the architect of "taste," instead of aiming at improving the occasion by building a well-constructed and artistic house, says, in effect, "This is ugly,—buildings in such a century were beautiful; let me build one like them," without reflecting that the said buildings were what the men of their time really required, and that it by no means follows that the men of this day require the same stamp of building: he observes that sanitary authorities build ugly houses; he resolves, therefore, to have nothing to do with sanitary matters, since he is emphatically an artistic architect. That is about the position of the matter, and very absurd it looks when put down in a definite form on paper, although many architects act practically on that theory throughout their professional lives, and are encouraged in doing so by their friends. There would be less serious objection to this position, perhaps, if we could be sure that the "taste" which is thus made the predominating influence were the right one or the best one; but there is obviously nothing to determine that, for what is right to one generation is wrong to another. Of the will-o'-the-wisp nature of taste, Mr. Eidlitz adduces as an example the prejudice in favour of Venetian architecture which Mr. Ruskin has been led into. He says, "The architecture of Venice heightened in its picturesque effects by an Italian sky and the ever-present Adriatic, and hallowed by historical reminiscences of the wonderful power and success of a handful of patricians and merchants during several centuries, has left upon the sensitive mind of Mr. Ruskin an indelible impression which dulls his perception to the beauties of architectural art outside Venice, and blinds him to many glaring defects of Venetian architecture itself. Why is he not equitable and just in his judgment, through the mere force of his natural taste?"

Why, indeed? For probably the eminent writer referred to has a more cultivated and refined "taste" than any but a very small number of his contemporaries. Again, says the author, "think of the period of Louis XIV., the Rococo of the European Continent, the palaces of the great built in forms so vile and unmeaning that we regret the tardiness of time and the elements in not wiping them off the face of the earth. . . . . Are we warranted in assuming that the architects of the Rococo were endowed with *taste*? And yet all Europe thought so in their time." The test in regard to architecture is not merely that vague sense called "taste," but it is taste subordinated to logic, to a consideration of the relation between what was wanted and what has been accomplished,—between what ought to have been expressed and what is actually expressed.

In other words, every building should be designed to express the idea of that purpose for which it was erected, and this idea is to influence, not to be influenced by, its style and decoration. The building being in the first instance (in all but very exceptional cases) a structure to fulfil practical necessities, the method of its arrangement and construction is the most important element of all, and that which should most decisively influence its expression. This is what Mr. Eidlitz adopts as the leading principle in architectural design very decisively; and though we need not tell readers of the *Builder* that the view is not a

* The Nature and Function of Art, more especially of Architecture. By Leopold Eidlitz, Architect. London: Sampson Low & Co., 1881.

new one, some of the arguments and illustrations which he adduces in support of it, as we shall mention just now, are somewhat new and very forcibly put. We may say, however, first, that he certainly under-rates the importance of the part played by architectural decoration in contributing to true architectural expression. In Chapter IV. he attacks rather decisively a dictum of Ruskin's, that architecture begins where that which is merely necessary leaves off. Ruskin does not, certainly, in the quotations which the author refers to, put the matter in a very logical or convincing manner. It is unquestionable that what is necessary to the plan and construction is the foundation of architecture; but for all that, it remains true that architectural art resides not merely in these necessities, but in giving due and suitable expression to them. One quotation which Mr. Eidlitz criticises is this of Ruskin's,—"I suppose no one would call the laws architectural which determine the height of a breastwork or the position of a bastion, but if to the stone facing of that bastion be added an unnecessary feature, such as a cable moulding, that is architecture." This is certainly not fortunately put, and we half suspect that if we had the context (the author gives no reference for his quotation) we should find the meaning of the sentence would have some modification. At all events, we know very well that the addition of that or any other form of ornament would not raise the bastion to the rank of "architecture," unless the said ornament in some way assisted the expression of the erection by emphasising some principal point in its construction. The idea of making structural works into "architecture" by adding some ornamental features to them is the very heresy of which the engineers are constantly guilty, and which we have complained of over and over again. But Mr. Eidlitz, in commenting on this, goes too far. He says:—

"The reflections called up in our minds on reading all this may be stated as follows:—If Salisbury Cathedral, for example, were stripped of every statue, ornament, and moulding which now adorns it, of everything 'unnecessary' to the stability of the cathedral as a structure, would not the naked structure which remained still tell the story of a Christian idea and of the emotions of men imbued with that idea; and would it not thus continue to contribute to the mental health, power, and pleasure of the beholder, and remain a work of architectural art?"

It might still remain a work of architectural art as regarded planning and construction, but it would be a very unmeaning pile. The building would lose not only all its beauty, but most of its expressive meaning. The application of ornament should always have reference to the structure: but, if so applied, it is only carrying the author's own principle one step further. The general distribution of the plan and section expresses the practical objects of the building; the ornament carries the expression further, by its own beauty of detail, and also by its distribution so as to emphasise the leading points of the construction. In this respect it is quite true that a very little ornament well designed and well placed is of much greater value than a profusion of ornament placed without regard to structural expression. But with no ornament at all (it must be remembered that the writer is including mouldings, cornices, and base courses under the general term "ornament") very little expression could be obtained: and architecture *is* expression. Building without expression is simply *building*, not *architecture*. What is required is that the actual necessary facts of the building construction should be realised first, and that the ornamental features should be the higher and clearer expression of these, and in that case they are an intrinsic and important element of architecture. They are not so only when they are thought of and designed first for their own sake only, and the structure merely regarded as a means of exhibiting them.

Mr. Eidlitz is more successful in his next chapter, on "Illogical Reasoning," in pointing out that forms, such as the forms of leaves in nature, are not necessarily beautiful in themselves and in every situation, but are beautiful relatively to their situation, and as the expression of certain conditions of growth. On this account, Ruskin's theory that pointed arches are beautiful because they remind us of the pointed forms of leaves (which the author quotes to show its weakness), is manifestly absurd; indeed, we really did not remember that Mr. Ruskin had ever been guilty of such an absurdity in architectural criticism. Mr. Eidlitz, however, makes a blunder himself in the same sentence, in denying that a pointed arch is especially strong, and that a lintel is a weak form of construction. He must surely be aware that the pointed arch is stronger at the crown, and exercises less lateral pressure, than the round arch, and that the circumstances of its introduction clearly show that this was a main consideration in leading to its first adoption. He must be aware that the lintel is a wasteful form of construction (in stone, at least), using the material in the way which gains the least amount of strength in proportion to its mass.

Architects, on the other hand, will be obliged to the author for the decided tone in which he speaks of the pretensions of lay critics and patrons. Art, he says, can be successful only when pursued for its own sake; architectural art submits to popular interference in the very process of creation. The modern architect "puts his thoughts upon paper, and before he executes them submits them to laymen for approval. There is no art or trade,—there never was one in this world outside of modern architecture,—which is found to be willing to court popular criticism and to abide by its decision before its works are executed. The architect submits to laymen a design of what he intends to do, and thereby admits, what is utterly false, that laymen are competent to compare a series of such designs and select the best, or that they can form a correct judgment of any one of them." A good commentary on the competition system, in which the employment of professional judges is still exceptional. When the subject is a dwelling-house, however, the owner has certainly a claim to see what his architect is going to provide him with in the way of accommodation, and it is hard to say that he is not to have any voice in the appearance of his house, if he really have an opinion on the matter. Most people for whom drawings are made, however, have really nothing worth calling an opinion; they have generally seen something else that they like, perhaps under quite different conditions, and want to have it imitated. They would in most cases be much wiser, if they have got the services of a good architect, in trusting to his judgment, and the architect would often be much wiser if he showed more decision and gave a more decided opinion as to what was best. Architects are often far too complaisant to the owner, who, in reality, requires to be guided, and would, perhaps, in his inmost heart be thankful to the architect who would make up his mind for him, but he is not likely to adopt that line when he sees no evidence that the architect himself has any decided opinion.

The second half of Mr. Eidlitz's book treats of the "nature of architecture," considered under various heads,—"Ideas," "Form and Construction," "Proportion," "Style," "Analysis," &c. The best suggestions in regard to the expression of an "idea" in architecture are contained not in the chapter headed "Ideas," which appears to us not to lead to anything very practical or even tangible, but in that on the "Definition of Architecture," in which are some critical suggestions well worth considering. "A community is supplied with dwellings, school-houses, churches, theatres, libraries, assembly-rooms, and courts. They all afford shelter to the same individuals in various combinations, but under different conditions. It is to the nature of these conditions that we must look for the idea expressed in the structure." The author goes on to say that if these groups are the result of mere physical convenience, then the structure fitted to accommodate these groups is merely a work of mechanical art. We are not sure about that conclusion being inevitable; but, at all events, this way of putting it recognises fully what is so much ignored in modern architecture, the importance of the plan as the basis of architectural expression. What is said on this head is so well put and so suggestive that we will quote it at some length, as an example of the author's style of writing and reasoning:—

"But if these groups are organised to express an appreciation of an idea illustrated by acts performed within the walls of a structure, either by word, motion, or sound (music); and if by their grouping they indicate an emotion, which is the result of the acts participated in, or merely perceived by the senses; and if the structure is so arranged as to express, or at least to betray in its form, in the modelling of its masses and parts, in its decoration and colouring, an adaptation and expression of the presence, order, magnitude, number, and relation of the groups accommodated in its interior,—then this structure is a work of fine art expressive of an act illustrating an idea. * * * * * *

A meeting-house containing nothing but closely-packed sittings, wherein men and women are stowed with economy of space to listen to a discourse from a pulpit crowded against a wall, is not a work of fine art; for the position of the audience does not indicate an emotion, say the worship of God, which is the result of an act in illustration of an idea, say our dependence on God and His universe, of which we are but an insignificant part. Structures of this class, indeed, perform the act of sheltering men from the inclemency of the weather, but not an act which is the result of an idea. On the contrary, such a structure is merely the result of a physical necessity, for the meeting-house, like the bar-room, is constructed for the mere purpose of human stowage, without reference to any possible act of the audience beyond mere existence, and is strictly prohibitory in form and expression of any demonstration which is the result of an emotion. When the men who listen to the discourse make any motion, it must be to leave the place. The limits of the structure forbid any method of grouping other than that of a series of equal human quantities, which have but one desire, viz., to be accommodated without being crowded, and to be protected from the sun and rain.

But when, on the other hand, we see a structure providing for a combination of groupings various in magnitude, elegance, dignity, and richness, which combination, in part or as a whole, represents certain acts of these groups,—say prayer, praise, confession of sins, exhortation, the partaking of the Communion, baptisms, marriages, funerals, ordinations, processions of various kinds, and consultations, such as we find embodied in the nave, aisle, choir, cloister, chapel, vestry-room, chapter-house, and baptistery, of a cathedral,—we may then say that such a structure denotes acts which are the result of ideas, and that it assists the congregation within it in the performance of acts explained by their resultant emotions."

This is really a very good way of stating the distinction, felt by all persons of artistic culture, between merely utilitarian buildings and those which are essentially architectural in their structure and design; and it serves also to indicate the true basis of the relation of plan and structure to what is generally called architectural design, making these qualities part of the design, and not, as the school of Ruskin and his followers teaches, a mere material basis to be overlaid with "design." This point the author elucidates further in some sensible and logical remarks which we have not space to quote. It is on this ground, we presume (though it is not directly so stated), that in another portion of the work (the chapter on "Analysis"), the author makes a plea for the æsthetic suitability of the Mediæval three-aisled church, which many practical men have condemned for modern places of worship. The writer says that "a congregation of men and women spread equally like a plaster over indefinite space is not a picture worth seeing; in fact, it is not a picture at all; it has neither foreground, middle ground, nor background." This is true enough, but it does not follow that the artistic grouping which is desired might not be attained by other means than by interposing columns or piers between part of the spectators and that which they wish to see and hear. We doubt, again, the criticism that follows in regard to railway station construction and the large-span roofs now used, which are objected to as merely a kind of *bravura* construction, unnecessary and opposed to true architectural economy as well as to picturesque architectural effect. "Posts, columns, and piers cannot possibly, in such a structure, intercept anything worth seeing. There is everywhere an abundance of space for these between the tracks." We must deny that a large railway station built on ranks of iron columns would be as convenient or fitting as one with a single-span roof. There are, for instance, officials to whom it is important to see what is going on in every part of the station,—the station-master, for example; and in some stations the carriages are hauled about for shunting by horses which walk in the "six-foot," and very likely those conversant with railway-station work could bring forward other objections. Nor do we see why the fact, that the temptation to make these large roofs "may be found in the love of displaying a mechanical effort," should be necessarily any objection. The love of displaying mechanical effort had a good deal to do with some of the *tours de force* of vaulting in the Middle Ages, which we now admire.

The chapters on "Proportion," "Style," "Ornament," and "Criticism" contain matter which merits more consideration than can be bestowed in the closing paragraph of an article, and we will devote some more words to them in another number; for, in spite of our doubts above expressed as to the ultimate usefulness of theorising, a writer who puts forth a serious and thoughtful effort to improve the theoretic basis of architectural art has a claim to careful consideration at our hands, whether in the recommendation of what seems true, or the criticism of what we think to be wrong.

East Looe Church Competition.—It is reported that the Committee have awarded a London architect, whose motto is "Britain," the first place, and a Cornish one "Thoroughly Good," the second premium of 10*l*.

PRACTICAL SCIENCE IN ENGLAND AND ABROAD.

The industrial energy of the United States affords an example which may be advantageously followed in Europe. It is a matter of some wonder to those of us who can remember the railway system in its cradle, and who are personally aware of the immense start which, five-and-twenty years ago, the forges, the factories, and the railways of England had and held over those of Continental Europe, to see how the spirit of enterprise has spread its wings from our shores. It is to Berlin that one great electrician goes to carry first into practical effect his electric railway. It is from the Alps that the first practical experience, so precious to a mining people like ourselves, in mechanical rock-cutting, and in the application of compressed air to the purposes of mining, is to be derived. And now, in that last new development of the doctrine of the convertibility of the physical forces,—lighting by dynamic energy,—we find ourselves at a distance behind the United States such as must be measured rather in fractions of a century than in portions of a year.

A glance at the map of the United States, with its straight lines of demarcation, so different from those afforded by either the political or the physical geography of the older world, may serve to impress the imagination with a sense of the rapidity with which scientific invention is carried into practical use in America. From Albany to Great Salt Lake is a distance of 38° of longitude. From New York to New Orleans is a distance of 12° of latitude; Akron, (in Ohio), Wabash (in Indiana), Denver (in Colorado), lie wider apart than do Paris, Brussels, and Berlin. From each of these distant points, in one single, and, so to speak, casual, letter from an American interested in the progress of electricity, comes the same story. We regard with a mixture of pride and wonder the few experimental steps which, chiefly at the risk of French, and partly of English speculators, have been taken towards lighting parts of London and some other towns by electricity. Neither in England nor on the Continent have there yet been established general lighting stations, to supply electric light after the fashion of gas-works. In the United States, we are told, "no considerable city is without such an institution." At Salt Lake City an arc-light company has for some months supplied electric light to miscellaneous customers. In Denver, Colorado, a city of 35,000 inhabitants, above 200 arc-lights are supplied to shops, hotels, &c., by a company; the light in each case being furnished at from 20 per cent. to 30 per cent. below the price of gas, as well as being much greater in quantity. The Salt Lake company is said to have been the first in the world to supply electric light in direct competition with gas. The returns to the proprietors are lucrative in each case.

The subject is attacked in America precisely as, thirty or forty years ago, the manufacture of gas was introduced into our smaller towns. A local company is formed, which, of course, has the advantage of the experience attained up to the latest hour. A concession from the patentees of the system chosen is arranged for. Ground is bought, buildings are erected, and engines, boilers, dynamo-machines, and the whole light-producing apparatus are purchased and erected. Powerful engines are employed, with fly-wheels weighing from 8 to 10 tons, in order to have steadiness and uniformity of motion, the absence of which is evinced by that flitting, firefly-like pulsation of light with which we have become familiar on the banks of the Thames. We have not heard of the application of water-power to the service, but of its adaptability near some of the great rivers of America there can be no doubt. Wires are conducted either under or over the streets, to be tapped where required, in the same manner as gas-mains. Automatic contrivances, for the purpose of turning light on and off at pleasure, are supplied with the lamps, which are visited and kept in order by the servants of the company. The result appears to be the advance of electric lighting all along the line.

The use of masts or towers of the height of 200 ft. for the lighting of squares and streets is becoming general. The city of Denver is lighted from lofty towers, and for the price formerly paid for gas four times the area is now lighted by electricity. In the city of Albany 300 electric lights, placed on alternate blocks, have replaced some 2,000 gas and oil lamps. Akron, in Ohio, is lighted from towers; and Wabash, Ohio, by four lights on the steeple of the Court House. In New York there are competing companies, one of which is now supplying 1,000 lights to shops, and is providing for 4,000 more. Most original of all is the application of this source of illumination at New Orleans. In the fever-haunted delta of the Mississippi the comparative coolness of the night is now selected for running the races of the Jockey Club by the light of electricity.

The tariff of the American light companies charges a fixed annual sum for electro-motive power, according to the number of hours for which it is supplied. The companies provide and maintain the lamps; the consumers supply their own carbons. The average price is about 30*l.* per annum for a 2,000-candle light, which is equal to 125 gas-lights of 16 candles each. A shop requiring twenty gas-burners would be better lighted by an arc-light of the strength of 100 gas-jets. In giving this,—the electric light companies' statement,—it must, however, be remembered that for many purposes number and nearness of lights will be more important than actual quantity of light radiated from a single point. As to this, however, we can only oppose scientific scepticism to actual practice. The Americans seem to have found out, in spite of the inconvenience of single points of illumination, that they are on the right track.

We are not writing with the view of recommending our readers hastily to subscribe for any new project of electric light companies, such as we may fairly anticipate will make its appearance in sequel to the above account. But still less do we recommend negligence of the subject. In case of the matter attracting that attention which it seems to us to deserve, we recommend those who take an interest in it not to be satisfied with mere second-hand reports, however brilliant and exact. In point of fact, experience would say, "The more brilliant they are, the less are they to be accepted without proof." What seems to us desirable is the appointment of some steady, cautious, intelligent engineer to visit the American gas-lighted cities as an English commissioner; to see for himself the mode of lighting; to measure the intensity of the light as it comes to the eye; to ascertain the prices, not of the electric light only, but of gas, coal, and other matters with which it has to co-operate and to compete. An impartial and exhaustive report on the electric lighting of the cities of the United States would be a professional paper of such importance that we hope it will not first emerge from the hands of a volunteer or the agent of a speculation.

CONTINENTAL GATHERINGS.

In Germany, at the present moment, a taste for the national art, more particularly the architecture, which at the period of the Renaissance possessed such a character in the land of Dürer and Holbein and their prolific contemporaries, strongly prevails. It is not, it will be seen, that phase of the Renaissance which with us is now in vogue, and which has safely crossed the Atlantic, where, we learn, a new theatre has been recently erected in the Empire City in the "colonial Queen Anne style." In Germany the style chosen is that of the Early, or rather Middle, Renaissance. To Nuremberg, the home of Dürer, we learn from the *Zeitschrift für bildende Künst*, can be traced the origin of this revival. In 1874 Herr Bergau, an architect, having built in that most quaint of the old cities of Germany a house for one of his clients in the style of the Landhauser of the Nuremberg patricians of the sixteenth century, with all the surroundings in keeping, the garden, the interior decoration consorting with the old furniture, while the modern comforts were in no way neglected, the effort met with immediate encouragement. Herr Bergau found himself amply occupied with commissions from the wealthy merchants of the city; among these one had a ruined castle in the neighbourhood completely restored and furnished in the old style; others contented themselves with the more modest satisfaction of seeing their rooms at home and offices restored in regular "Alt Nürnberger Stil."

In a rather tardily-published review of the architectural drawings at this year's *Salon*, our contemporary, *L'Art*, in speaking of the presence of a number of the competitive plans and sketches for the monument to the French Constituent Assembly,—mentioned by us in these columns some months since,—seizes the occasion to praise warmly the system of architectural competitions. It is a matter of congratulation, remarks our contemporary, that in spite of the protestations of certain established artists, the custom of public competitions, so beneficial to the cause of art, tends daily to become more developed. It is no longer a matter of doubt that all those who take part in such struggles issue from them more skilful and more experienced than they went in. Such contests are a powerful means of artistic education, and in the present day a stimulant of the most fruitful nature. At certain epochs which have possessed a style of their own, which had the good fortune to count among their artists undisputed masters of their art, we can understand that the direct commission produced excellent results; but at present, whatever be the amount existing of individual talent, such is not the situation. Our age is groping its way, and it will alone find it by adopting logically a system which is approved by public opinion, and which in reality is the result of general insufficiency, and of a crowded artistic career. The struggle is open to all, except those who consider it beneath them, and it is difficult to believe that any artist, with the programme of a competition before him, can resist the expression of his artistic conception. Of what is he afraid? The partiality of the jury? But public opinion, that of his brother artists, will invariably prevail, and it can be said that apart from certain exceptional cases, the meritorious works are never overlooked, and when by chance an artist is a victim to injustice, he may feel assured that he loses nothing in the opinion of his professional brethren. Why should we think much of some amount of personal annoyance if the cause of art gains, and if by means of this contact with public opinion it tends to be brought home to all? The enjoyment and appreciation of art must not remain indefinitely confined to the critics, the art-lovers, and purchasers. Our contemporary congratulates, on this ground, the French Minister of Fine Arts for having opened to competition the proposed colossal monument to be erected at Versailles; for, in the competition, while several of the more eminent architects have declined to take part, not a few young and almost unknown men have been brought forward, and against the merit of those rewarded not the slightest demur has been made; if originality seem wanting it may to a great extent be attributed to the binding nature of the programme. Respecting the actual results, our contemporary has only one regret to express,—a regret, on comparing the competition of to-day with that held fifty years ago for the familiar column of July, that in this half-century so small an artistic progress in originality has been made. Here is the position to which we have been led in France by the system of instruction which is called "classic," remarks our writer,—the preconceived idea which carefully sets aside from the education of the young student all that is not Greek or Roman. Let antiquity, by all means, be fully studied, nothing better, but that we should persist in believing that it is sufficient to cull with more or less skill from those great sources details and motives to suit modern programmes, and in this manner to succeed in expressing the conceptions of a new art, is to condemn our age to sterility, or at least to mournful commonplace. If the education were broader, if our academic instruction adopted some of the ideas put forward within a few years past, and the lessons which the critical study of many generations now places at the disposition of the artist, we should not be long in seeing the present state of things modified, for talent and imagination are not wanting; but the ground must be prepared: we must not oblige our artists from the very commencement of their studies to confine themselves to a restricted circle of ideas, which limits their power of thought without satisfying their reason and aspirations. Our extract has been lengthy, but it is interesting to see expressed in full from a foreign source the feeling in the matter of competition that in this country has so many adherents. It is well, too, that young students at home should learn from the experience of their brethren abroad, and understand the true value of, and the lessons to be obtained from, defeat in the "struggles," as our contemporary has put it, of their youthful career.

The cost of the colossal Brussels Palais de Justice, which is now being erected, is a striking instance of an exceeded original estimate. The work, as many of our readers may know, is far from being terminated, and hard upon two

millions sterling have been already expended. The original figure of the estimate was some twelve millions of francs, about half a million sterling. When the huge work was commenced, when the late lamented burgomaster Anspach was in power, the city of Brussels agreed to pay a sixth of this half million, but now the expenses have increased so enormously that the municipality have lately endeavoured to avoid the payment of the seven millions and a half of francs, which is the claim against them. The Brussels municipality have, however, been brought to law by the Government, and it has been decided that they will have to pay a sixth of the total cost of their new law-courts, whatever that sum may be. The wealthy and industrious little Brabant capital will, however, find it no great difficulty to pay the bill in spite of the numerous other and bigger items which it has had within a few years past to settle for its building activity. The changes in the old town are appreciable to those even who may visit for the first time the characteristic Belgian capital, whose charm, a rare feature, has only been added to by the spirit of modern improvement. In few cities in Europe, it may fairly be said, can the old and the new be seen side by side in more friendly and enhancing company than in Brussels. It is interesting and especially instructive, in speaking of modern improvements in Brussels, to notice the recent statement made by a correspondent of the *Pall Mall Gazette* to the effect that since the once befouled and reeking little river Senne has been closed,—over it now runs the grand Boulevard Centrale,—the average length of life in Brussels has been increased by two years, a fact striking enough, we consider, in its suggestiveness.

We have before now spoken of the building activity in Vienna. The Austrian capital at this moment is following wildly the example of Paris; in every direction building is going on, and, as is so invariably the case in great capitals, more particularly at the west end. Those who may remember the feverish period of Hausmannisation of 1872 and 1873, which was followed by, if it did not in a great measure hasten, the terrible financial crisis, the *crac* of the latter year, will, on revisiting the banks of the blue Danube, see those days revived, but without any of the unwholesome excitement that accompanied that movement. On the Franzen's Ring is being built a whole series of gigantic palaces, of which the two first opposite the Volk's Garten, two vast twin palaces of monumental architectural features, are intended to be occupied by the National Museum of Painting and Sculpture; here also will be placed and shown regally the magnificent collections of the Belvedere, the Ambras collection, and various other works of art belonging to the State, scattered throughout the city; a little further on, on the Parade Platz, another monumental building is being erected for the University, at present in very narrow quarters in the old town; opposite rises a new theatre in the Teinfalt Strasse; and in various directions, but in the same neighbourhood, are rising colossal houses in the style of those which border the "Ring." Near the Belvedere are being built a number of private residences, and the municipality are daily expected to give their authorisation to the plan proposed of transforming the familiar Prater into a Bois de Boulogne.

THE EVER-RECURRING QUESTION OF THE URBAN ACCOMMODATION OF THE WORKING MAN.

A RECENT report of the Dwellings Committee of the Charity Organisation Society calls attention to a subject which has been often seriously discussed in our columns. It is, indeed, one on the due settlement of which the future of urban architecture must in no small measure depend. It is the ever-recurring question of the housing of the very poor.

The question has attained its present magnitude and urgency chiefly from our national reverence for the great rule-of-thumb principle. We are not about to speak with disrespect of what has been a characteristic of the English people at all events since the year 1066, and it has become a classic axiom with us that institutions, including the institution of building cities, in order to prosper in our islands, must grow indigenously from the soil. *Civitas nata, non fit.* At the same time it cannot be denied that there are inconveniences attendant on the plan of never attempting to foresee, and thus to prevent, any inconvenience arising under the unchecked influence of the principle of growth. As London and other great centres have increased in age they have increased in population. The older parts have at the same time increased in value of site, while the buildings have grown more and more dilapidated and unfit for the requirements of modern life. This has led to two changes. Along the main lines of traffic, to which the old ideas of trade still cling, and where the actual exposure of goods to the passer-by is yet considered to promote their sale, new dwellings have arisen, calculated, or, at least, intended, to serve the needs of the retail tradesman. We need not here refer to the fall in the value of such sites which is now being effected by the concentration of custom in certain stores. In the back streets and side ways, at the same time, where there was less temptation to the proprietors to go to the expense of rebuilding, as the houses became older, more decayed, and more shut out from light and air, the class of tenants has descended in the scale of wealth and ascended in numeric amount. More and more tenants, at lower and lower rents, have divided houses, floors, and even rooms between them, and thus have grown up the nests of dense population which have obtained the melancholy but significant name of Rookeries. And thus as the whole population has increased, and as the distance between the richest and the poorest has increased at a still more rapid rate, the question of decent accommodation, near his probable work, for the decent artificer, has become more and more perplexed. The whole process has been artificially complicated and disturbed by the needs of internal communication, which have ploughed the deep furrows of railways and of new streets through our cities, thereby necessarily displacing an undue proportion of the smaller householders and their tenants.

It is evident that if this state of things could have been foreseen a plan might have been adopted by builders of cities which should have carried out, on an adequate scale, the natural growth of the infancy of towns. The main features of that infancy depended on the gradual clustering of minor dwellings round the castle of the lord. For hamlets to grow to well-proportioned cities, it would be requisite either to reserve proportionate areas for the humbler and cheaper dwellings, or to rear large and many-chambered dwellings, such as the Spanish and Portuguese monasteries, or the Italian *Alberghi dei Poveri*. To this, however, the independent ownership of the area of our cities has presented an insuperable obstacle. Each landowner has striven to do what seemed best for himself. Each has forgotten that by bringing his private plot of ground into a common stock, and by receiving his corresponding share of the income of the best arranged possible plan for well-ordered buildings, he would ultimately derive more from his ownership than would be possible in any other way.

Here, then, from time to time, we apply patches; but each patch helps us but little, and that for the two reasons that it is so small and so costly. We are reminded that a population nearly equal to that of Ireland is crowded into the 122 square miles of London, increasing in its density from circumference to centre. The population of a town of large size, some 60,000 inhabitants, is annually injected into this limited space. It is now twenty years since the munificent bequest of Mr. Peabody founded a new system of lodging-houses. But what was adequate for the London of 1860 is quite inadequate for the London of 1880, and it is not so very far an outlook to the London of 2,000 A.D. The Peabody buildings, we are told, comprise 2,355 dwellings, or 5,170 rooms, and are occupied by nearly 10,000 persons, at weekly rents averaging 4*s.* But this rent is four times that which the very poor can afford to pay; and the possibility of sitting at this rent has only been secured by two contributory causes, neither of which is of a purely business kind. One is the provision of the building fund at a low rate of interest; the other is the sacrifice in the value of the sites, which is said to amount to about half a million sterling. This costs the ratepayers 280*l.*, or 7·5*d.* per annum, for each family so housed. This is hard upon 3*s.* a week. Thus, given the elements of the value of urban land and cost of building on the one hand, and of limitation of the rent that the working man can afford to pay on the other, the provision of decent and reasonably rented abodes for the poor in the centres of population is one that is quite insoluble on merely commercial principles and data.

Here comes in the question of relief by railway accommodation; and no doubt this is a very important element in the case. But it is far from a simple one. The sites on which we have just seen that it cannot pay to build are left vacant, which pays still less. Then comes the question of the proper setting out of the districts to be inhabited by the workmen along the lines of railway. This is a matter which, if we leave to regulate itself, may in another generation repeat the evils from which we are now suffering in an exaggerated form. Then comes the question of the limiting distance, fixed by the cost of railway travelling. The wisdom of Parliament has provided for the carriage of the working man at a penny a mile. If the companies stand on their rights, that means a shilling a day,—six shillings a week, to be added to the rent of rooms, six miles beyond a metropolitan terminus. It is true that all the companies carry for less than this tariff. But it is also true that they, one and all, have refused to allow any impartial and exact investigation of the question, what does it cost,—in actual expenditure per ton per mile,—to convey third-class passengers, in given numbers by appointed trains. And it must be allowed that the Government regulations as to stopping at every station which were intended to benefit the third-class passenger have directly the opposite effect. As far as working expenses (exclusive of interest on money) go, it would cost less to convey 500 third-class passengers from St. Albans to Moorgate-street without stopping by the way, than it does to convey the same number from Praed-street to Moorgate-street, stopping at each intermediate station. As to this, we can, if required, give detailed proof.

We therefore cannot too strongly urge upon all those persons who, like the Charity Organisation Society, feel the necessity of looking a few years ahead as to the urban accommodation of the working classes, to do their best to secure the thorough investigation, scientific and practical, of the questions to which we have called attention. Where to build, how to build, how to give access to, and at what price to serve, the working-man's quarters of the metropolis, will hereafter become very embarrassing questions, if their solution be left until we are still more in the thick of them.

THE LAST AND MOST IMPORTANT LINK BETWEEN THE EAST AND THE WEST.

TELEGRAPHIC advice from Berlin announces the concession, to the well-known Baron Strousberg, of "a railway along the valley of the Euphrates." No public work out of England has hitherto been suggested which is of more importance to the commerce, the prestige, and the military security of the British Empire than such a line. In the *Edinburgh Review* of January, 1879, was an article on "The Road to India," which rather resembled an official summary of the main facts of the case than an ordinary review article. The writer commenced by showing that as far back as 1834 the Government of the Duke of Wellington had regarded the subject of a communication with India along the old line of Eastern traffic to be of sufficient importance to send out an expedition for the survey of the river Euphrates, down which it was proposed to steam, and "for the elucidation of the question of the best mode of communication between the Mediterranean and the shores of India." The information collected by this expedition, which was under the command of Captain Chesney, with the local rank of Colonel, was so voluminous that it has only partially been published. Comparatively few persons are aware of the existence among the archives of the Admiralty of large scale surveys of the course of the two great rivers, the Euphrates and the Tigris; of a sketch map of the entire district; and of a section, 140 miles long, from near the mouth of the river Orontes, by Antioch and Aleppo, to the banks of the Euphrates near Beles, some 1,000 miles from its mouth. The river, the lower part of which is very tortuous, is, of course, much longer than a railway on its bank might be. The total length of railway, from the ancient war-port of Seleucia, near the mouth of the Orontes, to Grane, or Sonedia, on the Persian Gulf, is stated at 934 miles.

In 1861 the Euphrates Valley route was declared by the *Times* to be "the most important question of the day." "When it is considered," said that journal, "that the proposed Euphrates

Railway will not only supply all the facilities demanded for commerce, but is to shorten the journey to India by almost one-half, the changes impending in this region will appear to claim greater attention, commercially and practically, than any at present to be looked for in other quarters of the globe." In July, 1872, a Select Committee of the House of Commons, with Sir Stafford Northcote in the chair, reported, after hearing the evidence of twenty-eight witnesses, in favour of the construction of a railway "from some suitable port in the Mediterranean to some other suitable port at or near the head of the Persian Gulf."

The time occupied in the voyage to India is thus stated. By the Cape, the old route, it would take from ninety to 120 days to steam from Portsmouth to Bombay. By the Suez Canal the voyage may be accomplished in from twenty-six to twenty-nine days; but the stoppage of the Suez Canal may any day be effected by a very small quantity of gunpowder or of dynamite, the explosion of which would choke this narrow waterway by foundering a vessel in its channel. The time necessary for getting from London to Bombay by making use of the existing line of railway from Calais to Brindisi, and of the Euphrates line from Seleucia to Grane, would be, according to figures given by that very competent authority, Sir Henry Tyler, R.E., 349 hours, or fourteen days and a half. If Kurrachee be taken as the Indian port, instead of Bombay, the time can be reduced to 307 hours, or twelve days nineteen hours. By making use of the existing route to Brindisi, and steaming from that Italian port through the Suez Canal, Bombay may be reached in 451 hours (a period which will be extended to at least 500 hours during the monsoon), and Kurrachee in 435 hours. There is thus a gain of from four days nine hours to six days ten hours to Bombay, and five days eleven hours to Kurrachee, practicable over the greatest speed with which the transit can be at present performed.

It may well be asked, "What is it worth the while of Great Britain to expend, in order to reduce the length of the journey to India by five days, or 35 per cent of the interval, measured in time, that now separates them?"

But saving in time is not all that has to be considered. Not only is a line drawn from some point on the Syrian shore to the Upper Euphrates, and thence running parallel to that river to the Persian Gulf, where the sea route recommences, shorter, by 18 per cent., than the Red Sea route at its best, and by more than 20 per cent. during the monsoons; but the whole of the shorter route lies north of the tropic of Cancer. On the present line there is a navigation of 800 miles down the Red Sea and the Gulf of Aden after crossing the tropic of Cancer. The Straits of Ormuz, at the mouth of the Persian Gulf, down which the traffic of the Euphrates line will come, are 200 miles north of the tropic. Thus the Red Sea route is not only 700 miles longer than that by the Euphrates, but the whole of this distance, and about half as much more, are exposed to a fierce tropical heat, from which the travellers by the Euphrates line will escape.

The distance by land from the shores of the Mediterranean to Antioch is 13¼ miles. By the course of the river Orontes it is 41 miles. The difference of level is 269 ft., which gives an average fall of 6 ft. 6 in. per mile for the river, and a gradient of 20 ft. per mile for the railway. From Antioch to Aleppo the difference of level does not require a mean gradient sharper than Mr. Stephenson's original allowance for the Birmingham Railway, 16 ft. per mile.

As to cost, Mr. Andrews, who has for many years advocated the construction of this important link in our communication with our vast Indian dominions, states that the construction of the Punjaub line was attended by far more physical difficulties than appear likely to stand in the way of the construction of the Euphrates line. The transport of material was very costly on the Indian Railway, while for a great portion of the Euphrates Railway the rails and other heavy articles can be brought to within small distances of their destination by water carriage. The Punjaub line was also constructed on the 66-in. gauge, whilst the 56½-in. gauge will no doubt be used on the Euphrates line. The Punjaub line complete, including stations, telegraph, and rolling-stock, together with a magnificent terminus at Lahore, cost only 10,000*l.* per mile.

The exchange of merchandise annually between Europe and the Indian Seas was calculated thirty years ago at 1,300,000 tons, and at a value of 40,000,000*l.* Out of these articles of transport, such items as suffer materially from a sea voyage, and would thus be likely to make use of a railway, such as tea, pepper, and coffee, and also the various articles consumed in the countries on the Mediterranean, were estimated at 692,000 tons. It was further estimated that the carriage of one-tenth of the actual traffic which went by the Cape of Good Hope would pay 5¼ per cent. on the construction of the Euphrates Valley Line. The opening of the Suez Canal has modified these calculations in a double sense. It has greatly diminished the advantage of a railway over an ocean route, but it has at the same time stimulated enormously the traffic between East and West, and rendered the gain of five or six days on the voyage of far greater importance than before.

At the same time, evidence has been collected as to the actual transport between Aleppo and the shores of the Mediterranean, with which the Suez Canal cannot compete, which shows that the local traffic would amply pay for the construction of the 100 or 150 miles of line between the sea and the great river. 181,100 tons of goods were annually exported, in 1857, from Aleppo, and 179,800 tons passed through that city for export. The present cost of carriage from Aleppo to Antioch is from 4*l.* to 6*l.* per ton. Taking these 360,000 tons at the enormously reduced price of 2*l.* per ton would give a gross revenue of 720,000*l.*, or 7,200*l.* per mile, exclusive of passenger traffic, which on the Eastern lines usually amounts to about 40 per cent. of the general merchandise traffic. From Aleppo to Grane, the traffic would have to be created. But the line is the most ancient commercial route in the world, and but little doubt can exist that commerce would flow back to the ancient channel if reopened by modern enterprise.

So far, then, from the need of the Euphrates Railway being obviated by the opening of the Suez Canal, at no period of our history was it more important than at the present moment to open the line of the most rapid communication.

If it be true that the concession is obtained, it is clear that the weight of one of the first powers of Europe must have been thrown into the scale to ensure it, and that something more than a mere commercial speculation has been in the mind of that power. Under such circumstances it is not likely that the execution of the works will be delayed for want of funds. If it be true that a German contractor, backed by that aid without which he would have obtained nothing of the sort from the Porte, has a concession of the Euphrates Valley Railway, we may be certain that the completion of the line will take place at no very remote period of time.

The result of all this consideration is, that if the telegram be true, and if an appeal be made to the capitalists of Europe by Baron Strousberg for the money, we trust that the moneyed men, and the leading men, of this country will not hesitate to take such an interest in the enterprise as to secure the adequate representation of British interests on the Board. It would not be easy to deal a more deadly blow at the vital interests of Great Britain than would be effected by the construction of the Euphrates Valley Railway under such auspices as should, under circumstances to which we need not now more distinctly allude, prohibit that passage over the line of British troops which would be afforded to the troops of other and not friendly powers.

A NEW SOURCE OF COSTLESS POWER.

Costless power, if at all attainable, is so only by means of utilising wasted power; but the amount of power which, so far as regards mechanical effect, for the service of man, is wasted, is so enormous as to be practically boundless. It is in no small degree for this reason that the progress now so rapidly making with respect to both the transmission and the accumulation of power is of such cardinal importance to the future of the human race.

There are many modes in which it has been or may be proposed to utilise electric power in which this axiom has been forgotten. For example, it is very possible to attach a dynamic apparatus to a locomotive or railway train which should give light during passage through a tunnel. But then, the moment that the light was produced an equivalent drag would be put on the motion of the train; and as the steam power produced in the boiler is applied in a very costly way by a locomotive engine, the intermittent and brilliant illumination that could be produced by the train itself would probably cost more than the permanent illumination of the tunnel by petroleum lamps.

But if any motion which is not useful, or is specially one which is prejudicial, can be caught, as it were, flying, accumulated and stored up, we should regard the attempt with the utmost interest. The recoil of a gun is the most striking instance of this waste, being that, so far as the flight of the projectile is concerned, of nearly half the force of the powder. This waste constitutes the recoil. The utilisation of the recoil for the purpose of raising a heavy piece of ordnance on its mountings is thus one of the most legitimate objects of the artillerist.

In the same way, if it prove to be possible to utilise the lateral vibratory motion of a railway-train, which now all goes to damage the way or the plant, for the production of stored electricity, we might at the same time utilise power now wasted and produce a greater steadiness of running.

There is another waste movement, of a like nature, to the utilisation of which we now desire to direct the attention of the inventor. This is the roll of a ship at sea. There is very little doubt that the heavy rolling motion of a large ship is rather hostile than favourable to its progress. In the case of a floating body, which does not roll perceptibly at sea, such as the iron cylinder built for the conveyance of the Obelisk to the Thames, this is clearly illustrated. The naked negros sat astride on the great cylinder undisturbed by waves or surf, and the resistance to the tug was diminished in proportion to the steadiness of the unique vessel that it had in tow.

Now, supposing the accumulation of small power, in the dynamo-electric form, to be a solved problem, it seems to us that not only may our men-of-war be lighted gratuitously, or nearly so, but that greater steadiness of movement may be attained in rough weather.

We do not propose here to adduce a plan for this purpose, cut and dried. But we wish to point out that the object is attainable, and that by more modes than one (provided always that the accumulation is manageable).

Thus the vessel might contain a connected system of heavy pendulums, or of siphon-formed pipes in which water would act as the counterpoise, which at each roll from side to side would force a certain quantity of air through an air-pump, and thus, or even by direct mechanical action, drive a small dynamo-motor engine. Such an engine, *per se*, would be of little use in such a case. But if provided with adequate accumulative capacity, not only might enough power be stored up to light the whole vessel by night, but small cranes or capstans might be so fitted as to be able to do great service in emergency, and to give to the crew an aid far in excess of their own human power, mechanically regarded.

At the same time, whatever amount of power was thus caught from the rolling of the vessel would, in its transmission to the air-pump or other contrivance, have its reaction in proportion to its action; and this reaction would go directly to moderate the roll, and to steady the ship.

The only objection that we can foresee to this suggestion would arise from the fact,—if fact it be,—that the skin-friction, or resistance to the endlong motion of the vessel through the waves, would be increased if the roll of the vessel were diminished. On this point we desire to speak with reserve. But it seems to us that both the experiments of Mr. Froude, and the experience of the obelisk vessel, are against such a hypothesis. A steady vessel may be slower than a rolling vessel, because its keel is deeper in the water, and thus the cross-section is larger, and the skin-friction more in consequence. But give a greater steadiness, without increasing the skin-friction, and we anticipate that the resistance to endlong motion would be less, instead of more. We speak under reserve, with no pretence to dogmatise on the subject, but so at the moment it seems to us.

That the proportion of length of vessel to speed of propulsion is one of a very delicate nature we know from Mr. Froude's experiments. And we have not the slightest doubt that the mechanical saving which is to be effected by the designing and constructing of vessels with a due regard to the speed at which they are to be navigated, must be very much in excess of any possible loss that might be attributed to the control and utilisation of the roll. As to the

methods by which this might be effected we do not propose at the present moment to say anything more. We shall be content if we have called the attention of those princely shipbuilders who are ever on the look out for anything that may diminish the cost, and increase the speed and the comfort, of ocean navigation, to an entirely new field of inquiry. And we say the same with regard to those able men who are now making such brilliant and successful inroads into the darkness that veils the future. That the principle of accumulation of power will effect as great a revolution in ocean navigation as we are now dimly beginning to foresee that it is likely to do in the aid of the minor, or even of the major, industries of the day, we do not venture to assert. But we do say that the idea has enough in it to recommend it to the very careful consideration of those who have at their control the machinery for testing its truth. To steady a berth, a table, or a compass within a rolling vessel has long been a matter for consideration. But the idea of utilising the inconvenient motion which it is desired to counteract is that which we now suggest.

THE DESTROYERS OF FOOD.

In the interest of all who eat bread, who eat mutton, who drink beer, or who drink claret, we wish to call attention to the subject of a lecture which was delivered at the Agricultural College at Cirencester on the 20th of October, on the subject of insects destructive to food-producing plants. We have not seen a copy of the lecture itself, but as far as it is fair to judge from the abstract which has appeared in the daily journals, it would be well to have it printed for a penny, and widely circulated. For there is much good sense in the practical suggestion that while, on the one hand, it is desirable,—as we have long ere this insisted in these columns,—to complete and to publish a full and accurate account of all those pests which afflict the farmer, in the four successive stages of egg, larva or grub, pupa,—which is sometimes inactive as a chrysalis, and sometimes actively predacious,—and imago, or perfect insect, it is also most necessary to give some useful instruction to those who may have neither the means nor the capacity to profit by such lessons in natural history. Such is the good counsel to note the insect pest by his actions,—to watch for his destruction at those crises of his history when it may be most readily effected; and to destroy that aid, comfort, and sustenance which he may otherwise derive from the poor relations of the cultivated plants on which he chiefly preys. Such are the charlock for the turnip-fly, the nettle for the hop aphis, and the wild grasses for the weevils and other devourers of the corn crops.

Considering, however, that not a few of those who attend in youth an agricultural college are likely to do so for the sake of instruction which may hereafter be of value to them as emigrants, we should recommend any writer or speaker on the subject of destructive insects to commence with that family which, from the days of Moses (and long before) to our own, is most to be feared by man. We mean that tribe of *orthoptera* known commonly as the locust. Our indigenous representatives of this vast order,—the grasshopper, the cricket, and a few more,—can give little idea of the consternation caused by these creatures when they come in swarms. That they darken the sun is not a poetic, but a practical statement. In their steady march across the line of country on which they alight nothing that grows is spared. They sweep the face of the land bare; fire has no terror for them,—they simply march on to the bonfires made to keep them off until they stamp them out. No check, no remedy, no escape is known from a swarm of these creatures in their perfect state; but very much may be done by destruction of their eggs. In England we have perhaps little cause to dread the ravages of the *orthoptera*, though it must be remembered that every acre of ground that is allowed to go out of cultivation,—and we have 1,200,000 fewer acres under corn crops than we had in 1871,—becomes a fertile breeding-ground for noxious insects. Not only so, but negligent cultivation, scratching the soil with a hoe or even a donkey plough, allowance of the picturesque growth of weeds, idleness under whatever name it is applied to the soil, is as effective in the encouragement of insect pests as industry is in the improvement of the crops. As man fills and tills the wide wastes of the new world, the locust will gradually become less and less to be feared. But what noxious creatures may not spring from neglected tillage in older countries no one can predict, although the Russians are now learning. It is to be remembered, too, that it is not unfrequently the case that an injurious plant or animal, when introduced into a new locality, multiplies and spreads with astounding fertility. The hungry, ugly, sneaking black rat, that is at home in our sewers and neglected foundations, and that would readily make a meal on an infant in a cradle if left unwatched, is a foreign invader, and has almost entirely displaced the old English rat, which, if a predacious, is certainly a very beautiful, animal, much like a large dormouse, and of very domestic habits, and not, it is to be hoped, either so hungry or so prolific as the invader,—the Dane or Norway rat.

Again, the invasion of our waters by what has been called the "new weed," the "American weed," and the "thyme weed," of which the botanic name is the *Anacharis alsinastrum*, is a case of the extraordinary growth of a foreign pest. It was first found in England, or rather in Scotland, in 1842, in the lake of Dunse Castle, in Berwickshire. In 1851, the Rev. W. M. Hind, writing from Burton-on-Trent in July, says "it bids fair in a short time to block up one of the two streams into which the Trent here divides; and from the fact that the *Anacharis* is a dioecious plant, and that amid all the rivers and lakes into which it has spread in the vast area of country that drains into the Humber, no male plant has ever been found, it is concluded, with some probability, that the whole of this enormous mass of vegetation has sprung from a single plant, accidentally introduced on a piece of timber from North America.

With regard to the phylloxera, which has been attacked in France, Italy, and Germany with a system and intelligence such as has never been brought to the aid of the cultivator in the United Kingdom, it is even now a moot point whether it will not prove victorious over the vine-grower, and allow no respite from its attacks until it becomes extinct from the mere fact of having eaten up all its natural food. It is to be hoped that this will not be the case; but there is much fear that it will. The economic importance of these two scourges of the American and of the European cultivator is such as to lead any writer on the subject of destructive insects to call attention to the great importance of his theme by citing the most formidable cases of depredation.

It is very remarkable, however, to note how that counsel which three thousand years ago was given to the sluggard,—to go to the ant, consider her ways, and be wise,—is enforced on the same individual by insect preachers. It might be said by the ant herself, in the West Indies, and other tropical countries, meaning the white ant or termites. But this destructive creature is not really an ant. It does not belong to the order *Hymenoptera*, the bee and ant tribe, which contains so many carpenters, sawyers, masons, paper-makers, tapestry-hangers, and other insect building tradesmen, besides the famous makers of honey; but to the order *Neuroptera*, which includes the dragon-fly, for its size the most powerful of all creatures on the wing, and the most predacious of those of insectivorous habits in its perfect state. Industry, that is the moral of the story, is the source of wealth, as much almost by what it unconsciously as by what it consciously effects. The man who destroys weeds and keeps his ground clear, from industrious instincts, is rewarded by the destruction of the hiding places and feeding grounds of his insect foes at times when there are no crops on which they can subsist.

Art-Gallery for Wolverhampton. — A gentleman has written privately to the Mayor of Wolverhampton (Mr. J. Jones), offering to erect a building at a cost of 5,000*l.* for an art-gallery conditionally on the town providing a site. The donor has chosen the Mayor, the Rev. J. T. Jeffcock (rector), and Sir Rupert Kettle, as a committee to mature the plan and decide whether a museum shall be attached, and also to obtain promises of works of art, &c. When promises to the value of 10,000*l.* are obtained, or the committee are otherwise ready, the donor, who stipulates that the Mayor shall not divulge his name, will be prepared to begin the building. A site is selected near the public park.

THE PRESIDENT'S ADDRESS AT THE ROYAL INSTITUTE OF BRITISH ARCHITECTS.

The following is Mr. Street's opening address, delivered on Monday evening last, as elsewhere mentioned:—

Gentlemen and Colleagues, — It is a time-honoured custom that the opening meeting of the session shall each year be devoted to a review of our position, the work we have done during the past year, the losses we have sustained, and finally, the openings which appear to offer themselves for the promotion of that which, above all, concerns almost all of us,—the advancement of the art to which we have devoted ourselves. We all know how much it pleases some of our critics to assert that the objects of this corporation are selfish first of all, and devoted to the improvement of the art and the science of building only in a very secondary degree. I need hardly waste words upon a refutation of such statements. I am content to point to the volumes of our "Transactions" for the most complete answer to them, as well as to the experience of those who have served on our Council from time to time. The real object of the Institute of British Architects is very different; we exist not only because of, but for, our art. It is not because we are architects that we band ourselves together in selfish opposition to the interests of the world, but rather that the interests of the outside world and of the profession may be harmonised and proved to be identical; and equally that our well-loved art may be more studied, more admired, better understood, and more widely practised, not only by ourselves, but by the public outside our ranks. The real interests of the public and of ourselves are identical. The obligation to carry on the business side of our work upon the highest rules of honour or integrity as between man and man is placed in the very front of the conditions of membership of this Institute. We admit of no compromise or conditions; and the condition of membership here is undoubtedly that of working thoroughly in the spirit and traditions of gentlemen. In addition to this, the practical work which we have to do is, by meetings, by reading of papers, and by discussions, to keep up and increase as far as we can the general interest in and knowledge of our art, without which neither accomplished architects nor an intelligent public will continue to exist. Naturally our work of this sort divides itself into that which relates to the scientific and that which is concerned with the artistic side of our art. I think there has of late years been rather a tendency to devote more time to the former than to the latter; but the art of building, the art of draining, and the like are exact, and do not admit of perpetual discussion. The development of attention to the study of novelty in construction is not always for the advantage of good building. Half the inventors whose circulars cover our tables every morning claim as the chief merit of their inventions that they are cheap, and I would that occasionally they convinced us that they were equally lasting. You will pardon me, I am sure, for frankly speaking my mind on an occasion such as this. I maintain that British architects are honourably distinguished for the way in which, as a rule, they deal with all those questions of new forms of construction, of water supply, of drainage, and of the general conditions on which comfort and convenience in our houses depend. English comfort is a proverbial expression almost all over the world, and our architects are fairly entitled to a large share of the credit of its creation.

I wish it were quite possible to make the same assertion with regard to our artistic successes. It strikes me more strongly, the more I think of it, that we cannot quite escape some responsibility for the bad work which is done by builders without our aid. How is it, one may fairly be asked, that, with an ever-increasing body of architects educated and trained more and more carefully, the vernacular architecture of the country becomes worse and worse every day? The vernacular architecture of a country is that which the carpenter, the bricklayer, the mason, the smith, or the plasterer does if left wholly to himself. We all know that the time was when little even of this work was wholly contemptible; take even the last century, and in such work one sees a simplicity and restraint in design, and an absence of vulgar display, which make one feel a charm in work most of which certainly never passed through

an architect's office. Go from the house built in the suburb of an English country town in 1750, to one of the houses which rise in countless numbers on all hands now, and your verdict as architects and as artists must always, I fear, be given in favour of the former. Compare the two and you will find that the taste of the eighteenth-century builder was for simple and good work before ornamental, so that he seldom came to the latter at all; whilst the taste of the nineteenth-century builder is to do everything for display, sacrificing the money which might have made his work at least substantial to an investment in so-called "ornaments" to the show fronts only of his house, which are costly to put up, costly to keep in repair, and hideous in their ghastly unfitness for their place. They have some compo keystones, ornamental railings and balconies, a few lumps of terra-cotta, "elegant" cornices and window-dressings, and highly-suggestive chimney-pots; and for the sake of these the house has walls and floors so thin that every sound can be heard throughout, and so weak that in a heavy gale you rock in your bed. For all this, of course, we are only indirectly responsible, but I do think that we must allow that too many, if not all of us, think too much of the fronts of our buildings, and so have practically brought up a whole generation of builders and workmen to believe firmly that all buildings ought to have a show front, whilst we so often sacrifice solidity to the pleasure of creating what we call ornament that we have led them naturally to assume that ornament is an object by itself to be clapped on to a building at all hazards, and even at the sacrifice of solidity. I should much like to see your attention more and more turned to this large and serious question. It deserves discussion and action. For, depend upon it, some screws must be very loose indeed in our system if all our work is so wholly outside the world as not to influence the vernacular architecture of the people for good. My only suggestion at present is that our duty is to show by example that simple building may be quite as good as extravagant, and that the essence of all good architecture is that it should be solid and lasting before it tries to be ornamental, and that ornament is a feature which grows out of utility, and cannot be applied to a building like a loose-fitting garment to cover defects or to distract attention from parts which are not supposed to be seen. It is unworthy of architects to build what is in its very nature ephemeral, and I wish heartily that, before all questions of style, this vital one of solidity were always present to us when we are making our plans. Depend upon it, the builders who have been trained by architects who never build what is not solidly and well constructed are much more likely to build for themselves in the same spirit and way, than they ever are if they have been otherwise taught. And, after all, it is the work done by builders without the intervention of an architect that we see wherever we move in this ever-increasing city, and in others similarly conditioned. It is work which it ill becomes us to treat as non-existing. It is, on the contrary, one of the very first necessities of the day that we should, in some practical way, deal with it.

There is another question to which the one just mentioned naturally leads, and this is one as to the extent to which we may be able to affect, in the interests of our art, the future architectural arrangements of the streets and buildings throughout our great cities. To state the case in this way is perhaps in fact to answer it, as far as relates to direct interference with or influence over what is done by municipal authorities; though as our Institute boasts properly that it is a British and not only a London institution, our object ought always to be to keep this fact well before us, and to act even out of London whenever the importance of the case demands it. In 1876 the late Mr. Wyatt, in the course of a discussion on Mr. Eastlake's interesting paper on the work and history of the Institute, told us that the author had omitted to mention one proof of the growing influence of the Institute. This he saw in the request which had just then been made to us, to exercise control over the designs and elevations of buildings in Northumberland Avenue; a request which became, I believe, a law to the extent of making it necessary that all these designs should be "submitted" to the Council of the Royal Institute of British Architects. Well, I know not, gentlemen, what the general feeling on this subject is now. Some, I know, agreed with the view which I took at the time, that the position we were taking was a dangerous one, and one that could do no sort of good to our art. The taste of the individual members of a council may be excellent; but there is an unwillingness on the part of a body of men to criticise too severely, or to agree in suggestions as to the alteration of, the work of a brother architect. Opinions differ round our own table as to what is best, sometimes even as to what is good, to such an extent as to end in approval being given to works in a general way to which probably every one of the Council in his own heart can see little good. Nor is this all. The elevations alone, which are not complete without plans, are submitted; modifications of a very simple kind alone can be and are advised, the advice is neglected, and the building is, after all, erected with little, if any, attention to the opinion of the Council of the Institute. In the end, if Northumberland Avenue ever becomes an avenue of buildings, the Institute will have to ask itself whether the control it has exercised has been sufficiently strong, and the result so good, in comparison to that of the streets in which we have not been able to interfere, as to justify Mr. Wyatt's satisfaction. For myself I have no hesitation in saying that it would be better, if we are to have no more power than at present, that we should have less.

I do not think it right to close the few words I have to say on the Northumberland Avenue question without endorsing what fell from my predecessor in this chair on the subject of architects who are members of the Metropolitan Board. He was speaking of the business relations which constantly bring members of our body, as well as the Institute itself, into correspondence with the Metropolitan Board of Works, and he concluded with the expression of an opinion, in which I concur so completely, that I think it only right to repeat it. Mr. Whichcord's words related to the composition of the Board. "Architects," he said, "may be elected members of that Board just as barristers, solicitors, and doctors may be so elected. It would be ridiculous to say that professional men shall not sit at that Board because they may have had a pecuniary interest in some of its public building transactions. But I shall run no risk of censure when I say that a Fellow or an Associate of this Institute, if he be elected a Member of the Metropolitan Board of Works, ought not, from that moment, to have any professional connexion whatever with the purchase of land offered for sale or lease by the Board; nor should he be professionally engaged in the superintendence of buildings to be erected on land which is the property of ratepayers whose agent and representative he is." Such a statement is so obviously right and beyond question, that I am sorry it should be necessary to repeat it.

Upon the broad question of giving general advice through our Council, I feel sure that the Government, or the governing bodies of our great cities, might well, and with advantage to themselves, consult us from time to time on the preliminaries of great building operations; and I have no sort of doubt that we should always be willing to give the best help in our power. Whether the points to be settled are the best routes for new streets, the best sites for great public buildings, or the best openings for architectural improvements, it would be advantageous to every one if the subject were laid before a committee of experts,—such as the Council of this Institute is,—for its advice and opinion. Take such cases, for instance, as the choice of a site for the New Courts of Justice; or as to the choice among various schemes for the placing of the New Government Offices which are even now required; or as to the conditions on which railways are to be brought into London or across our river, and it is obvious that our opinion might well be asked, and almost certainly be acted on, with advantage to the world and without prejudice to any one. In the last case, for instance, can it be doubted that, if we had been consulted, the House of Commons would never have allowed the London, Chatham, and Dover Railway to erect its bridge across Ludgate-hill, and to erect a second and almost equally ill-placed bridge across the Thames, within a few yards only of another built on wholly different lines? Nor would the South-Eastern Railway have been permitted to build the two gigantic and odious sheds on the river side, which have been the ruin of so much of the beauty of the matchless prospect. Such subjects lead me to say how useful a function this Institute might perform if it could keep a more active surveillance on the mode in which the works of deceased artists are dealt with. I am not among the passionate admirers of such a work as the General Post-office, but at any rate it was a consistent design, carried out in an honest and uniform spirit, and complete in outline and character. New wants have arisen since it was built; Rowland Hill has come and gone, and more and more accommodation is required. But it is almost beyond credence, that some of that increased space should have been obtained by a series of erections on the roof of the original building, hideous in themselves, and wholly careless of the effect produced, or even of having in themselves any architectural character at all higher than that of a third-rate house or workshop. Yet so it is. And perhaps it was because for years the porticos and colonnades of another great public building,—the British Museum,—were entirely filled with glass cases and partitions, without any outcry from the public or from us at such a defacing of a consistent and costly design, that the Government which represented the country was so heedless of the monstrosity of which it was guilty, when it made the additions to the Post-office. Nor is it out of place here to ask when the front of the Colonial Office in Whitehall is to be finished? Its architect evidently prepared for the erection of two towers or pavilions at the angles of the front towards Whitehall. His proposals were not acted on,—and there to the present day stands the building with its two most important angles evidently unfinished. Every day a large proportion of the members of both Houses of Parliament, and most of the Ministry, pass under the walls of this unfinished front, without, I suppose, one thought of the injustice done to the memory and reputation of one of the greatest architects of his time. Surely on such a question as this the Institute of Architects, if no one outside will move, ought to take some action.

Then, again, I hope we are all agreed that there is no work in which we can, as a body, do better service to our art, or more certainly show our real sense of its value, than by sturdily opposing all schemes for the destruction of existing works of architectural art, or constructions of historical or archæological interest. We have, as you know, a committee for the conservation of ancient monuments; it is a strongly constituted committee, and its existence cannot be too widely known. There is always work for it to do. Take, for example, the case of the City churches. It is no exaggeration to say for myself, what I doubt not very many of you feel also, that when I return from some foreign travel, and cross the railway bridge into Cannon-street, I feel a pride in the architectural beauty of the City of London, which is never lessened by contrast with what I have been seeing elsewhere. And to what, may I ask, is the beauty of this view owing? There is a magnificent river and a sublime bridge, but beyond and above these a cluster of towers and steeples, of so much variety of design, so skilfully treated, so picturesque from every point of view, as to afford unending delight. In the year 1800 there were 107 churches in the City, in the year 1877 only ninety-five remained, and of these there were no less than thirty-one scheduled as "at present" to be pulled down. Only the other day another of Wren's reputed churches, St. Matthew's, Friday-street, was said to be condemned, and though the particular case is not a strong one, it seems to me high time that this Institute should strain every nerve in order to save any more such regretiable destruction of the buildings to which London owes so much of its beauty. If architects stand by quietly, it may be assumed that there are no artistic objections to such work. We may still permit men to go on in the cheap and easy fashion of making our ancestors' piety and liberality pay for building and endowing churches which we, with all our increased wealth, choose to think we cannot afford to erect; and by the time that all the empty churches (consequent largely on a non-resident clergy) have been removed, and their sites sold for counting-houses, shops, banks, and what not, men will awake to the discovery that the architectural beauty of the City is a thing of the past, and that the loss is irremediable. At the West End I hope the same words of warning are not required. We have been appealed to in reference to a rumour that St. Margaret's, Westminster, was to be taken away. This is a constantly-recurring rumour. The newspapers probably think that every one

wishes it removed. They forget that it has just been refitted at great cost, that it is a building full of architectural and historical interest, and they are not aware that the builders of our great churches and cathedrals, being artists, had never any objections to the erection of small buildings near to, or in contact with larger ones, to which they gave infinitely more value and scale than they otherwise possessed. I am glad to be able to assure you, however, in this case, on the best authority, that there is no foundation whatever for the rumour. It is remarkable to notice how much is lost on all sides for want of some active hands to save threatened works of art. We look round on the Paris, the London, the Florence, the Cairo, the Venice of our youth, and find that on all sides work has been destroyed, apparently mainly for the sake of change, for the loss of which no new building will ever atone. In London there is the well-known case of the colonnade of Burlington House, taken away upon the understanding that it should be rebuilt, but lying in a mouldy heap somewhere on the other side of the river. In some similar limbo, we suppose, are the stones of Temple Bar, for the re-erection of which in some spot not far from its old place, such, for instance, as an entrance to Temple Gardens, one would suppose that funds might without difficulty have been found. Farther to the west is an even more interesting work,—the water-gate at Buckingham-street, Adelphi,—treated in an even more ingeniously spiteful way. For here the lovers of the beautiful have created a garden with lawns and shrubs and winding walks, which one would suppose might have been allowed to undulate as well as to wind. At any rate, even now the level of the garden might be lowered for some distance on either side and in front of the gateway, and Inigo Jones's work might again be seen in its integrity, instead of being earthed up to nearly half its height, and of having its archway used as a receptacle for rubbish, and the decay of its old stonework hastened as much as possible by the piles of damp earth and plants carefully placed against it by the landscape gardener. And, to conclude, there is the case of the church in Edinburgh, for taking down and rebuilding which, on a new site, stone for stone, the railway company were bound to, and did, provide the funds. Here, again, the stones remain in a heap, and the Corporation, unless they are much traduced, have kept the money for their own municipal purposes.

I might easily multiply examples of the same kind. They all seem to point in the same direction,—to the necessity in such a country as ours for the creation of a Government department of the Fine Arts, whose office should be not only to give order to our magnificent but often confused and inaccessible collections, but to take care that our national buildings and our historical monuments are classified and preserved as far as possible from further damage, either at the hands of time and weather, or at the equally-destructive hands of those who (as in the case of the Post-office) have no hesitation in wholly destroying the architectural character of a great public building. I believe that the appointment of such a ministry might be followed very soon among other things by an addition to our museums, which has often been urged strongly,—but hitherto unsuccessfully,—of a museum of casts. Every one admits the advantage to students of art of such a museum. Berlin has shown us the way, and the expense could not be so great as to be a difficulty in the way of so rich a country as this is. Moreover, it seems to be a necessary complement to the other collections which have been accumulated within the present century, as affording the very best means of educating the eyes of a people who are undoubtedly holding their own against foreigners in all artistic matters far better than they did before such museums were first of all formed. The collections at South Kensington, to which all who are interested in our art must always most gladly confess their indebtedness, contain, no doubt, a good many most valuable casts, but they represent only comparatively modern art, and even then are in no degree whatever complete, and they are not, as they should be, exhibited by themselves, or classified in such a way as to be thoroughly useful to students. I hope that we shall keep this subject well before us, and that no opportunity will be lost of pressing upon Government the sense that this Institute must feel of the importance of such an addition to our national collections. It is a feeling which is sharpened in us by the knowledge of the fact that such a museum would, to a very large extent, illustrate the close connexion which ought to exist between the work of the sculptor and that of the architect. The best works of the greatest sculptors have nearly always been their decorations of architecture; and the evidence of this necessary connexion before the eyes of the people is the best way of familiarising them with the fact, and of leading them to feel the want in our own buildings, in which, even when the architect has advertised his desire to see sculpture introduced, the spaces he has left for it are still, as a rule, conspicuous by their emptiness. The Government which, with a large and wise liberality, would deal with such questions as these, would secure for itself perhaps less temporary popularity, but would have the satisfaction of knowing that it more permanently benefited the highest interests of the community than it could by exclusive attention to purely political questions, and as such work ought to be independent of party, what one set of ministers undertook would not be likely to be undone by their opponents or successors.

At the recent Conference, the question of competitions led to much discussion, and the resolutions arrived at have been discussed by the Council, who will ere long lay before you the result of their deliberations. The position which I hope will be taken by you will be to arrange that in the event of a competition being indulged in, due securities should be given for really accomplished assistance, or advice, or judgment on the competing plans, not only in regard to technical questions as to compliance with conditions, but at least as much on true artistic questions, which are even more to be thought of and more vital. But it is, I hope, no part of our business or duty to do so much in the way of facilitating competitions as to lead the world to suppose that we are in any sense whatever admirers or encouragers of a system the defects of which, under the best arrangements, are so many and so patent that the best men keep themselves wholly or almost entirely out of reach of them, with the result that works which result from competitions are seldom those which we look back on with the greatest satisfaction.

Our Conference in its discussions leaned rather to the merely business-like side of our work; but let us hope that this was corrected in some degree by the visits paid to various buildings and collections in the metropolis. Of the latter, those to Buckingham Palace and to Sir Richard Wallace's were the most important. Probably we all regretted that the palace of our well-loved Sovereign was not more worthy, in structure and in decoration, of so great a monarch. Your Council desired me to express their sense of Sir Richard Wallace's singularly courteous treatment of us at Hertford House, in which I am sure I represented the unanimous opinion of our members.

Our numbers still continue to increase. Last year at this time the total number of Fellows and Associates was 716. The additions during the year have been 28 Fellows, 143 Associates, 9 honorary Associates, and 9 honorary and corresponding members; and deducting the losses which we have sustained by death or otherwise, our numbers now stand at 370 Fellows and 491 Associates, a net gain of 19 Fellows and 126 Associates. It is to be hoped that this large accession of new members does not mean that we are reaching a lower level of qualifications so much as that the Institute is becoming more recognised as the centre of our work. A large increase of members involves also an increase of our means, and additions to our library, which is rapidly increasing, and is now of great value. Another addition to our means of doing good work is Mr. Godwin's generous foundation for the promotion of the study abroad of modern structures and building improvements and adaptations. This has the special peculiarity of being open to all British subjects of any age, and though it is not educational in quite the same sense as most of our other prizes, it will, there can be no doubt, be of high value in its results to the profession.*

Melbourne Cathedral.—The *Melbourne Argus* of September 28th, says:—"A donation of 5,000*l.* has been offered anonymously towards the completion of the Anglican Cathedral, Melbourne, on condition that 25,000*l.* is contributed from other sources before the close of the year."

* The remainder in our next.

ROYAL INSTITUTE OF BRITISH ARCHITECTS.

THE opening meeting of this Institute for Session 1881-82 was held on Monday evening last, the President, Mr. Street, R.A., in the chair.

Certificates of Proficiency were presented to Messrs. Arthur Marshall, William Henry Thorp, Alexander Pope, and John Dent Harker, passed candidates in the Class of Proficiency at the twelfth and final Voluntary Architectural Examination, 1881.

The following gentlemen were balloted for and declared to be duly elected, viz.:—

As Fellows:—William Leiper, Glasgow; John Slater, B.A. (*Associate*), Bedford-row; Daniel Brade, Kendal; William Harvey (*Associate*), Whitehall; Capel Nankivell Tripp (*Associate*), Gloucester; Henry Thomas Gordon, Basinghall-street; and William Eade, Ipswich.

As Associates:—Robert Barton Morgan, Birmingham; Lawrence George Summers, Nottingham; John Tweedale, Leeds; Thomas Ames, Bathampton; John Henry Eastwood, Red Lion-street; Horace Thomas Bonner, Lewisham; George Elkington, jun., Cannon-street; Arthur Edmund Street, M.A., Cavendish-place; Arthur Edward Lloyd Oswell, Shrewsbury; George Thomas Poole, Southampton; James Martin Brooks, Wellington-street; Maurice Charles Hulbert, Queen Anne's Gate; George Borer, Finsbury-circus; John Henry Curry, Tulse-hill; Alfred Millwood, Hammersmith; Percy Paul Green, Hampstead; Edward William Mountford, Buckingham-street; John Wardle Bulcock, Blackburn; Arthur John Gale, Surrey-street; William Jacomb Gibbon, Oxford-terrace; Ernest Augustus Eckett Woodrow, Hornsey-rise; Walter Blackwell, Millman-street; Arthur Charles Bulmer Booth, Bennet's-hill; James Tolley, jun., Cannon-street; Thomas Batterbury, Great James-street; Richard Mauleverer Roe, Leadenhall-street; John Malcolm, Queen Victoria-street; Henry William Peck, Gower-street; Joseph Porter Power, New Broad-street; Edward Alan Jackson, Chancery-lane; Henry Petit, Welbeck-street; Alfred Augustus Bonella, Montague-street; Henry Gregory Turner, Chancery-lane; Andrew Edwards, Red Lion-square; Peter Dollar, Great Marlborough-street; and Francis Lennox Canning, Westminster.

The President then delivered his inaugural address, the first half of which we print in preceding columns. The delivery of the address concluded,

Sir Frederick Leighton, P.R.A., said,—In obedience to the commands of the Council of this Institute, I rise to ask you to express, by a vote of thanks, your appreciation of the very remarkable address to which you have just listened. The duty thus placed in my hands is doubly grateful to me. As an honorary member of this Institute, I hold it to be a great privilege to be permitted, on such an occasion, to ask for this vote. As a member of the Royal Academy, I rejoice in the opportunity given to me of doing homage on his own throne to that efficient and devoted officer who sits on the right of the president at the councils of the Royal Academy. Gentlemen, I need hardly say that I do not propose to follow minutely the vigorous and lucid address to which we have just listened, but I would ask your permission to address to you one or two observations that have suggested themselves to me on a perusal of the address which I owe to the kindness and courtesy of your secretary. Now, in the very forefront of his remarks, Mr. Street has touched a chord to which every lover of the building art must, I think, warmly respond. He has lamented, as well he may, the vast amount of building work,—if it may so be called,—which rises to the right and left of us in weary acres in all directions, wherein the architect, indeed, has neither hand nor part, and in which a reckless,—I had almost said, a criminal,—structural flimsiness vies with a depraved vulgarity of taste. Now under the first of these vices no doubt the chief sufferer is the occupant; but the effect of the other is more far-reaching. To the great masses of men the sum of their perception in matters of taste is naturally but the result of those fugitive impressions which follow one another, hardly observed at the time, in the daily routine of their lives. Now I know nothing more certainly calculated to numb and deaden whatever latent spark there may be in those masses of a perception of beauty, than the constant inhaling of what I may call the miasma of ugliness. I hope, with Mr. Street, that the frequent example of solid, tasteful, and simple work may exercise a counteracting influence, and I may add,—what he surely thinks, though he did not say it,—that in no more certain way can you contribute indirectly to what I may call the chastening of taste than by promoting the love of solid, sober, and honest workmanship, because with that love of solid and simple workmanship comes of necessity that dignified and sober tone of mind to which meretricious tawdriness is wholly foreign, and, in fact, absolutely repugnant. The contemplation of the uncontrolled production of ugliness in this

country has inspired Mr. Street with a desire to see the establishment of a minister invested with powers of control in certain matters of art, and there is no doubt that in theory, in the abstract, a great deal can be said in favour of such a proposal. There is no doubt that the constant and vigorous influence of a competent minister of art, checking with authority all that is bad in art, and fostering with favour all that is good, would be a most beneficent influence; but I cannot help feeling that there is much to be said on the other side, and that many grave difficulties would beset such a scheme. In the meantime, there is one controlling influence more potent than all, and which I think all of us should make our very best efforts to direct and control. I mean the public taste. That alone is potent in the long run for what is good and what is bad in art. I believe, however, that so long as there exists amongst the public a grotesque indifference to beauty, and a callous indifference to ugliness,—until the people have a higher sense and a more refined perception of beauty, the career of the true architect will be, I fear, a lifelong struggle against the solid and serried ranks of the Philistines. But amongst those schemes for which the aid, if not the initiative of the Government is indispensable, I am glad to see that our President gives prominence in his address to one in which I have taken a great interest for some time,—I mean the collection of a large and scientifically comprehensive museum of casts, such as we see already in Berlin, and not only there, but, either in completion or in process of creation in several Continental cities, as, for instance, in Paris and Munich, and even in little Switzerland (I forget whether at Berne or at Zurich). When we consider that in all contemporary scientific research, or in nearly all, the keynote is evolution, and when we consider further how faithfully the evolution of the tone and temper of nations is mirrored in their art, and how much we learn, that we cannot learn elsewhere, of the history of nations from their arts, it does strike me as very extraordinary that in this country, which is the very stronghold,—nay, the very cradle—of evolution, so little should have been done for the study of that great principle in art. While biology, anthropology, sociology, and philology have received much attention in connexion with the theory of evolution, it is curious that archæology should have taken a place in relation to this subject so little adequate to its merits as a guide to the study of mankind, quite irrespective of its intensely fascinating interest viewed on merely artistic grounds. That a perception of this shortcoming is ripening in minds in which it may eventually lead to practical and fruitful action I venture to say that I have some reason to hope, and I do not doubt that some day, possibly not very remote, the young English archæologist may study at least the rudiments of his science without the necessity of going to a foreign country for that purpose. I will only touch upon one more point. So loyal an Academician as Mr. Street could not fail to have alluded to the development which the study of your great art has taken of late in the schools of the Royal Academy. But he did not allude to one matter which I know has at least as much weight with him as with me. I allude to those provisions by which the Royal Academy has sought to more closely knit together the three arts which are its care, and to eliminate and set aside any barriers which may have existed hitherto between class and class, and which may have prevented the interchangeability of the study of the three arts by all students alike. These provisions are made as inducements as well as privileges. I very earnestly hope that they will be very freely used, and that they may conduce to the consolidation of the three noble arts, which are akin. I have much pleasure in moving that thanks be given to your President for the very excellent address which he has just delivered to us.

Mr. A. J. B. Beresford Hope, M.P., said he felt it to be a very great privilege to be allowed to second the vote of thanks which had been moved with so much taste and elegance by the President of the Royal Academy. It was an extremely masculine, able, sensible, well-spoken, and admirably-composed address which Mr. Street had delivered. He used all these adjectives not for the sake of piling up a fluffy, fulsome compliment, but strictly critically, and as definitions as accurate as on the spur of the moment he could give of the qualities of the address. Having known the heart-searchings and the trouble and anxiety of preparing similar, though, he was afraid, far inferior addresses to be delivered by him from that chair, he was entitled, he thought, to congratulate Mr. Street on the triumph he had achieved. The address afforded instruction for the members of the Institute and instruction for the world: "*Urbi et Orbi*,"—*urbs* being that room, and *orbis* the morning newspapers of the next day. He had listened with very great interest to that portion of Mr. Street's address in which he had dealt with the suggested Ministry of Fine Arts for this country, and he had also listened with equal attention to the passing allusion to the subject made by Sir Frederick Leighton. He had often spoken of the subject before, and, coupling what had been said by Mr. Street with the words of caution which fell from the President of the Royal Academy, he thought he might say that a Ministry of the Fine Arts, if it would do enough, and not too much, would be an admirable addition to our public offices. He remembered that some few years ago it was very much the fashion in some quarters to advocate what was called "regularity" in the architecture of our public buildings and streets, and it was suggested that such regulation should be the care of a permanent official. Against such a proposal he most strongly protested. A permanent official entrusted with such duties would have the effect of stereotyping taste in building. He would be the suburban builder *in excelsis*. The proposal to have a permanent director of arts, in that sense, was one to be utterly and absolutely scouted. Who was to be the Minister of Arts? The departmental minister who sat in the House of Commons or House of Lords had his own mysterious master concealed behind him, in the shape of the permanent under-secretary of the department. Of course, if there was to be a Minister for Art there must be a permanent Under-Secretary for Art. By all means let there be a Minister for Art if he be an ideal minister, but, at the same time, let care be taken that the permanent under-secretary did not become the permanent overseer. The proposed Ministry of Arts should not be so powerful as to be able to override such bodies as the Royal Academy, the British Museum, and the Royal Institute of British Architects, and to make them serve as mere departmental *bureaux*. He did not say this with a view to throw "cold water" on the proposal, but merely to show the difficulties that beset the question. If the Institute, as the recognised mouthpiece of the profession of architecture, was true to its mission in every way, it would cease to be sneered at from the front benches of the House of Commons.

The motion having been put to the meeting,

Mr. Street, after expressing his thanks for the way in which his address had been received, said he was quite aware that there was a great deal more to be said on some of the subjects he had touched upon, and especially with reference to the question of a Ministry of the Arts.

MODERN EASTBOURNE.

The rapid progress which Eastbourne is at present making as one of the most popular seaside resorts in the south of England is a striking proof of what can be effected by public spirit and capital, and of how an almost-unoccupied and straggling series of hamlets can be converted into a handsome and well-laid-out town, with miles of streets, ornamented by noble terraces and princely mansions. In order fully to appreciate the transformation which Eastbourne has undergone within a comparatively short period, it is necessary to compare its present extent and population with what it was little more than twenty years since. The number of its inhabitants at that period was 5,700. Ten years later, that is, in 1871, its population had risen to 10,352, whilst according to the last census returns, only a few months since issued, it now has a population of 22,500, showing that during the decade between 1871 and the present year, the population has considerably more than doubled itself, the increase within that period being about 125 per cent. In 1857 the total number of houses was 400, whereas the Eastbourne Local Board have now on their books 5,000 as the number of houses within the district under their control, and a few weeks ago we were informed by Mr. Schmidt, the building surveyor, who courteously afforded us other information, that within the last six months he has passed the plans of 400 new houses, many of them detached family residences and other high-class structures, which are at present in course of erection. The present rateable value of the town affords another illustration of its rapid expansion. In 1845 its rateable value was 10,000*l*., whereas it is now, in the year 1881, upwards of 100,000*l*., the increase being thus tenfold within a period of thirty-six years.

There can be no doubt that the Duke of Devonshire, who owns the greater portion of Eastbourne,—estimated to cover an area (including the Parade) of nearly 6,000 acres,—has been the main cause of its remarkable development and expansion. An esplanade is, of course, regarded as an indispensable requirement at all seaside localities, and this feature Eastbourne already possesses on a scale which may at once be described as unique, whilst it is at present in course of extension, both in a south-west and in a north-east direction. It is estimated that in roadmaking, drainage, and the formation of the parade, the Duke has expended no less than 300,000*l*., and in extending the parade still further westward, he is now expending a further sum of 50,000*l*. This extension is from the point known as the Wish Tower to what may be termed the foot of Beachy Head, at Holywell, which now, with the village of Meads, forms a part of New Eastbourne. What is called the Marine Parade, in an easterly direction, is of the ordinary watering-place character, but the western section, named the Grand Parade, with which the Duke of Devonshire is specially identified as its constructor, is one of the most picturesque in the country. It is in terrace form, consisting of both an upper and a lower promenade, connected at intervals by flights of steps, the slopes between the upper and lower promenades being planted with flowers and shrubs, amongst which tamarisk is prominent. Another specially distinguishing characteristic of this portion of the Parade consists of large and commodious shelters erected at intervals along the promenade, together with a continuous range of forms and seats. From the point where the extension of the Parade commences to its terminus at the foot of the hill leading up to Beachy Head, there is continuous ascent, and the slopes between the upper and the lower promenades are of considerable depth. In order, therefore, to connect them, winding roadways down the slopes are being constructed, as well as steps. Messrs. Wallis & Wallis are the contractors for the extension. Running parallel with the Parade extension, the Duke has just completed the extension of the public road from the Wish Tower to Holywell and Meads, the road gradually rising until a high level is attained at Holywell, from which there is a commanding marine view. Several fine terraces of houses fronting the sea have just been erected between these points, whilst others are now in progress.

It is immediately opposite the terminus of this road and the parade extension that the large and handsome Convalescent Hospital and chapel, designed by Mr. Woodyer, of Guildford, is situated. The building, standing within its own pleasantly-laid-out grounds, was erected at a cost of 42,000*l*., accommodating upwards of 200 patients. In consequence of still further accommodation being required, a new wing has just been added, the contractors for the building being Messrs. Wheeler Brothers, of Reading. This new wing was opened on Thursday last, the 10th inst., when, with the sanction of the Bishop of Chichester, there was a special service in the chapel, the sermon being preached by the Rev. George Body.

The parade eastward has already been completed from the Wish Tower to the Anchor Hotel, and it is now being further extended in a north-easterly direction to the Great Redoubt, or eleven-gun battery. In connexion with this extension a strong sea-wall is in course of construction. The extension is 1,800 ft. in length, and its estimated cost is 34,000*l*. Mr. John Jackson is the contractor. The works are being carried out by the Local Board at the cost of the ratepayers. It will thus be seen that upwards of 80,000*l*. is at present being expended in parade works alone. The entire length of the parade from north-east to south-west, when these works are completed, will be nearly three miles.

A very comprehensive system of sewerage, from the designs of Mr. Shone, of Wrexham, has just been carried out, at a cost of 36,000*l*. Large ejector works near the Archway Tavern, complete the drainage of the town. The works

commence inland at Old Eastbourne, which is about one mile and a half from the sea in a north-westerly direction. The several sewers converge at the sea side, and have their outfall at Langney Point, situated about four miles from Eastbourne—a sufficient distance to preserve the bathing sites intact from sewage contamination. The outfall pipes are carried a long distance out seaward, so as to prevent the possibility of the sewage being washed back at high water to the shore opposite the town. Eastbourne is likewise fortunate as regards its water supply, which since the year 1859 has been chiefly in the hands of the Duke of Devonshire and a company of proprietors associated with him. In that year the duke bought up the rights of a small local company, and had new works constructed. In connexion with these works there are three spacious reservoirs. The largest of them is situated on high ground, 400 ft. above the sea level, and in the locality leading to Beachy Head. It is about the summit of a beautiful spot not inaptly named Paradise, immediately overlooking the Duke's mansion and grounds in the valley below, called Compton Place, and which is at present occupied by his brother-in-law, Mr. F. J. Howard. From this elevated spot there is a charming and commanding marine view on the south-east, together with an extensive view inland of the country for miles around, on the north-west and north-east sides, Pevensey Castle, Hastings, St. Leonard's, and the locality adjacent, being conspicuous in the more immediate distance. The capacity of this reservoir is equal to 2,000,000 gallons. The water is pumped up into this and the other reservoirs from deep wells passing through and filtered by the chalk, which is a guarantee for the excellence of its quality. It is thence supplied to the town on the gravitation principle. The rapid increase of the town renders an extension of the existing works necessary, and those works are now in course of construction. They consist of the sinking of another well, together with the erection of new buildings and pumping machinery in connexion. These are situated not far from the existing works, but on the opposite side of the railway, and about a quarter of a mile from the Eastbourne Station. The new well is being sunk to a considerable depth through the chalk, until it arrives at the greensand, whence an abundant supply of pure and excellent water is said to be obtained. Over the well an engine and boiler-house are in course of erection, the foundation-stone of which was formally laid about a fortnight ago by Miss Currey, daughter of the Duke of Devonshire's solicitor. The engine-house has a main frontage of 70 ft. in length and 65 feet in height, with an ornamental chimney-shaft carried to a height of 150 ft. There is also a further frontage of 70 ft., this portion of the buildings consisting of a low block, containing the boiler-house. The buildings are faced with stock bricks, having stone and red brick dressings and string courses. The cost of the works, including the engines and machinery, will be 15,000*l*. The architect is Mr. Henry Currey, of Norfolk-street, Strand.

As regards the numerous private residences and other buildings which are being erected in rapid succession, there is a distinctive speciality about them deserving notice. The long lines of structures on the parade facing the sea, and in the several streets and roads immediately adjoining, are all, as a rule, faced with Portland cement, and in their architectural features are altogether different from those in the new roads more inland which continue to be laid out. Amongst the more prominent buildings on the parade are the hotels, several of which are large and costly structures. These include the Grand Hotel, nearly opposite the Wish tower, towards the west end of the parade; the Burlington Hotel, a little further eastward, is likewise a large and handsome building. The two most striking buildings in the town, however, of this class, whether as regards their architectural features or capacity, are the Cavendish and the Queen's Hotels, the last named of which has only been completed within the last few months. The Cavendish, which has a lofty elevation with a central portion and two wings, is at present in course of enlargement and completion by the erection of the second wing. The architect is Mr. T. Knightley, and the contractor, Mr. James Peerlee, of Eastbourne. The Queen's, which is the most recently erected hotel in the town, is situated at the east end of the parade, a short distance westward of the great Redoubt, and has a range of frontages, containing six stories each. Including the ornamentally laid out grounds, which are partially devoted to lawn tennis, the hotel covers an area of more than an acre in extent. Internally it has accommodation for a very large number of visitors since the completion of the new wing a few months since. It has a spacious entrance-hall, 33 ft. square, from which, along a wide corridor, a number of noble apartments on the ground-floor are reached. These include the *table d'hôte* room, 70 ft. by 35 ft., in addition to a spacious bay, 24 ft. by 12 ft.; also a coffee-room, 47 ft. by 23 ft.; a drawing-room adjoining, 35 ft. by 17 ft. together with a reading and writing room, and a billiard-room. The first and second floors contain a large number of private sitting-rooms, and on the remaining floors there are ninety-six bedrooms. Mr. Henry Currey is the architect, and Messrs. Wallis & Wallis, of Eastbourne, are the builders. The cost of the hotel, exclusive of the furniture, which was supplied by Messrs. Maple, of Tottenham-court-road, was 40,000*l*.

Amongst the public buildings and other attractions in the immediate neighbourhood of the parade, a public pleasure-ground on high ground around the old Martello-tower, named the Wish Tower, must be noticed. The site of this, which is between the carriage-road of the Grand Parade and the sea, has been ornamentally laid out, and is much frequented by visitors. The pier, which was lengthened a short time ago, and is now 1,000 ft. long, is a favourite promenade. In addition to the facilities for bathing on the shore by numerous well-appointed bathing-machines, an extensive and handsome block of buildings, forming salt-water swimming-baths for both sexes, have recently been erected on a site fronting one of the new streets, a short distance inland from the parade; and close adjoining, still further inland, is the Devonshire Park, an ornamental recreation-ground, twelve acres in extent. In the park there is a spacious pavilion, in which concerts and other entertainments are held. During the season there are performances in the park every morning and evening, by Jullien Adams's band, and a special feature is that the pavilion, as well as the grounds, is illuminated by the electric light. The land for both the baths and the park was presented by the Duke of Devonshire to the companies formed for the construction of the two establishments respectively.

The Eastbourne of the present day, which is manifestly destined yet to make more rapid strides, and ultimately to become one of the most important towns in Sussex, may be described as consisting of the localities comprising old Eastbourne, Southbourne, Sea Houses, and Meads. These hitherto disconnected and straggling congeries are fast being converted from a purely rural into a thickly-populated urban neighbourhood, forming a large and ornamentally-laid-out modern town and charming seaside resort, having all the advantages of marine views in combination with beautiful inland walks and scenery in almost every direction around. Under their Act of 1879 the Local Board's district extends to all the several districts above named, over which they have large powers in connexion with the laying out of streets and the erection of buildings. This Act gives them control over the materials and workmanship employed in every new building, likewise providing that no new building shall be occupied as a dwelling-house until the drainage has been completed, nor until the building has been certified by the building surveyor as fit for habitation. There are also other stringent provisions as to foundations and other matters, so that the sanitary condition of all new residences in this interesting locality ought to be well secured. In laying out the several new roads in various directions a noticeable feature is the preservation of full-grown trees, imparting to a large proportion of the roads the Boulevard character. This more especially applies to the hamlet of Meads at the north-west of the town, adjoining Compton Place, where large numbers of houses of the villa and mansion class are in course of erection, and which is not unlikely to become the Belgravia of Eastbourne. As we have already observed, the character externally of the new buildings in Meads and other roads inland materially differs from those on the parade. The materials of the former as a rule consist of red brick and flint, with gabled frontages and red tiled roofs.

From the extreme west end of the parade the carriage-drive is continued along the Meads-road shaded by a long avenue of elms and other full-grown trees, leading to South-street, in the direction of the railway station. It is at this point where the new Town-hall is about to be erected, designs for which have been prepared by Mr. E. W. Schmidt, building surveyor to the Local Board. The building is intended to be in the Classic style of architecture, and will be two stories in height. It will be faced with red brick, and will have stone dressings and columns, the ground-floor having Doric and the upper floor Corinthian columns. It will have a central tower, carried up to a height of 50 ft., with three stories, and in which will be the principal entrance. This will lead into a large hall, and stone staircase, which will give access to the upper floor. The building, amongst other apartments, will contain a large court-room, 75 ft. by 80 ft., with retiring-rooms for the magistrates; also a board-room, 40 ft. by 27 ft., for the meetings of the Local Board, together with the offices of the clerk to the board, the town surveyor, and building surveyor; also, committee-rooms, jury-room, inspectors', rate-collectors', and general clerks' offices. The total cost of the building is to be 14,000*l*. The site is at Stock's Bank, fronting South-street, which, under the board's Improvement Act, is at present being widened and re-constructed.

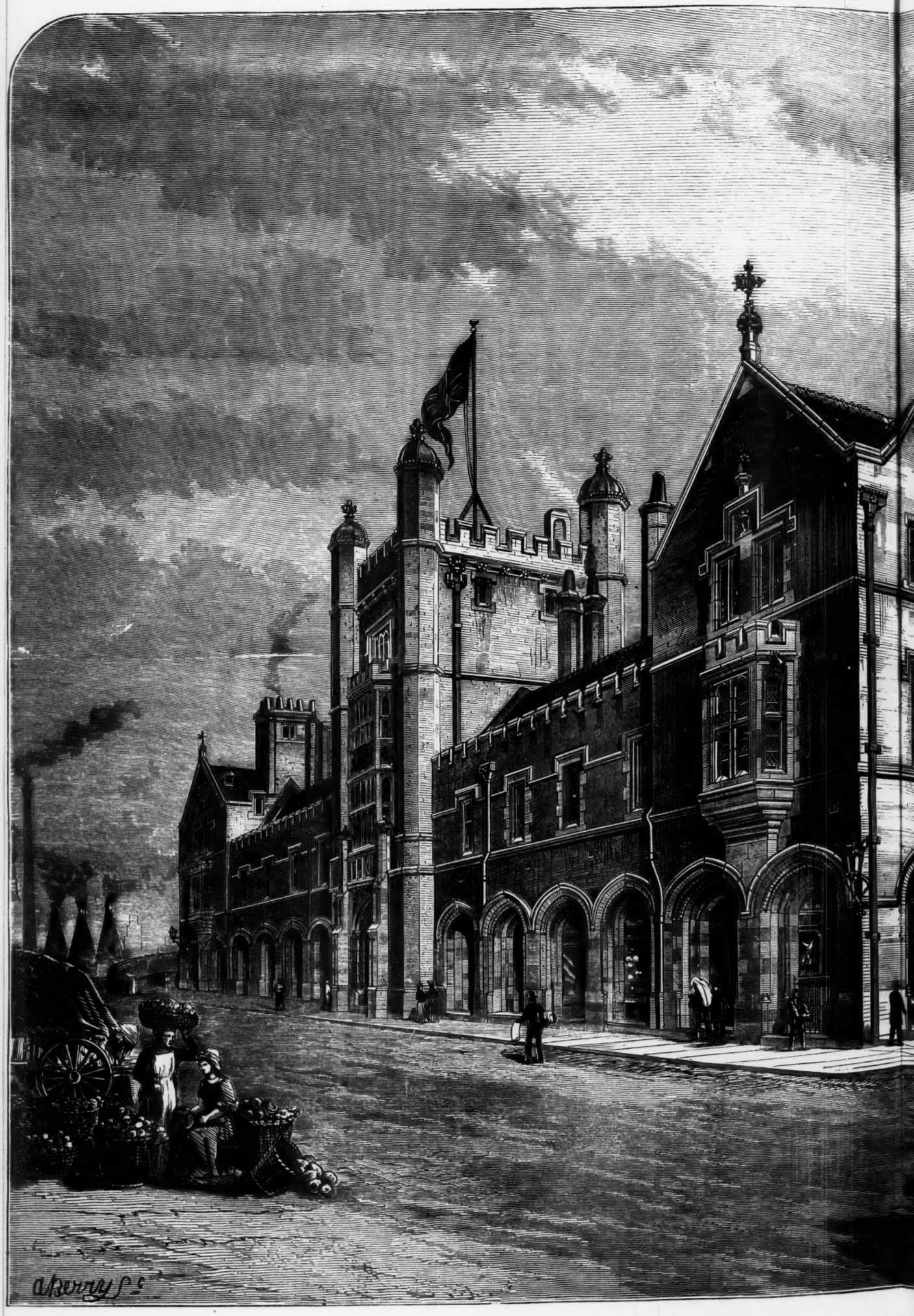
Eastbourne is noted for its schools and other institutions of an educational character, and amongst other buildings of this class which have recently been erected is the new college in Compton-place, an establishment covering a large area of ground, with accommodation for upwards of 100 students. Eastbourne College, another establishment of the same class, consisting of an extensive range of school buildings and dormitories, is situated in Blackwater-road, not far from Devonshire Park. A large building, containing library, reading-rooms, and lecture-rooms, has likewise been erected near the Queen's Hotel, under the auspices of the Mutual Improvement Society. Churches and chapels are erected in quick succession. On what is known as the Upperton Estate a new church, called St. Andrew's, has just been erected from the designs of Mr. Haddon, of Hereford, the contractors being Messrs. William & John Crow, also of Hereford. A new Baptist chapel, nearly opposite the site of the new Town Hall, was opened about a month since; whilst a large Presbyterian church a short distance from the Devonshire Park, is almost completed and ready for opening. In South-street new choir-schools and residences are being erected for the choir-boys of St. Saviour's Church, close adjoining. St. Saviour's, which was erected some few years ago, from the designs of Mr. G. E. Street, is the largest and most costly church in Eastbourne. It is Gothic in style, with a lofty tower and spire, and is elaborately decorated internally.

The accommodation at the railway station has been found to be altogether inadequate to the traffic to and from Eastbourne, and the station is at present being considerably enlarged. The extension will add two double lines, and arrival and departure platforms, each about 600 ft. in length. It is stated that the entire re-building of the present booking-offices, and the whole of the station buildings facing Terminus-road, is ultimately intended, and that there is a probability of these contemplated works being carried out in conjunction with the South Eastern Company, in connexion with a branch of the last-named company's line between Battle or Robertsbridge, and Eastbourne.

In closing this notice, we may state that, by the liberality of the Duke of Devonshire, a spacious building has just been erected at the summit of Beachy Head, close to the coast-guard-station, for the convenience of the numerous visitors who daily make the ascent to that elevated spot during the season, where tea, coffee, and other kinds of refreshment can be obtained, but no intoxicants.

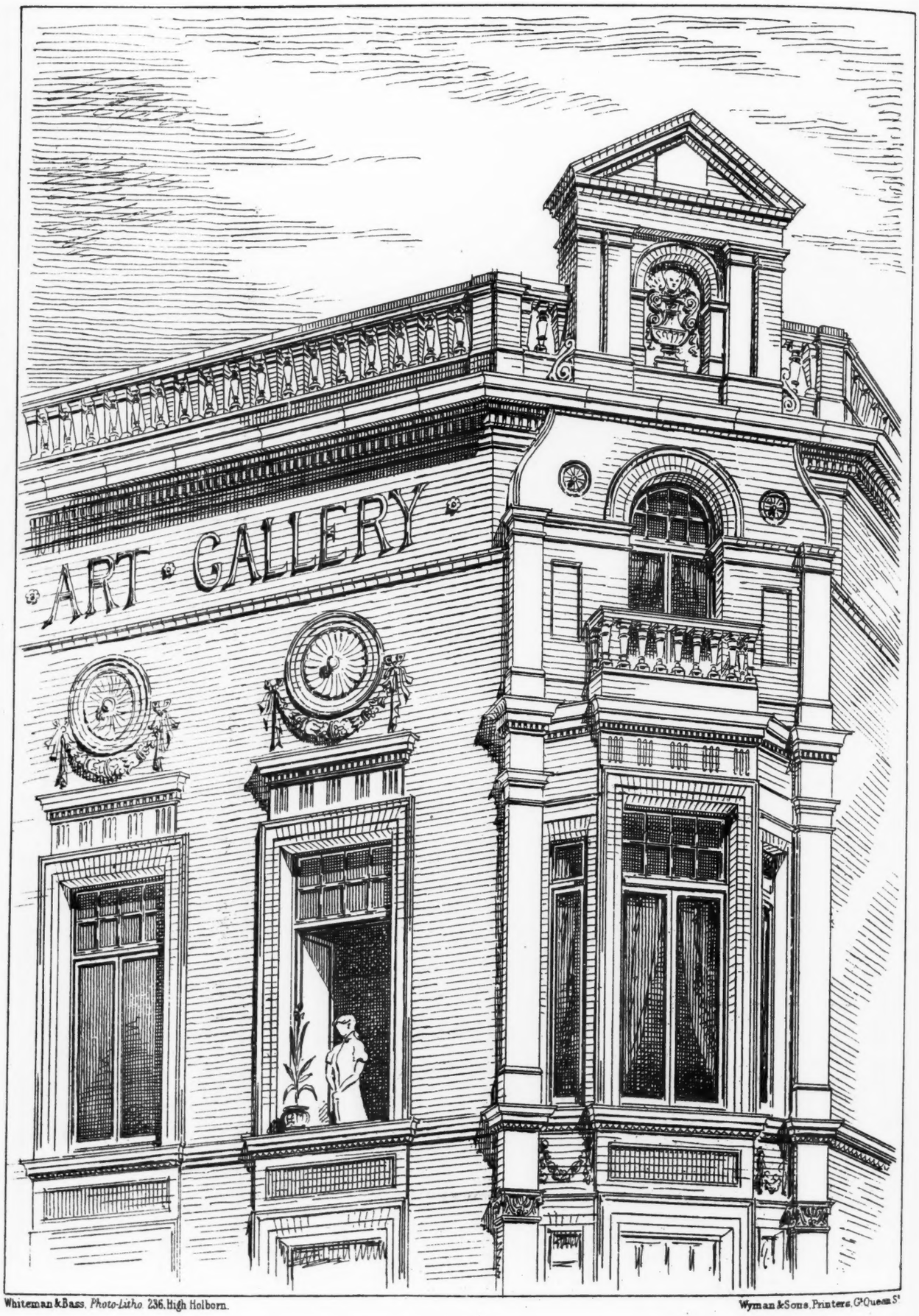
MESSRS. AGNEW'S ART GALLERY, LIVERPOOL.

We give a sketch of part of the new gallery which has been erected for Messrs. Agnew, in Liverpool, from the designs of Messrs. Salomons & Ely, architects. The exterior is carried out entirely in red bricks from Maidenhead set in white putty, all cut and rubbed; the mouldings are cut on the spot and the carving is done in the brick. The interior is fitted up in American walnut and pitch pine; the cost was about 11,000*l*. Messrs. Haigh & Co., of Liverpool, were the contractors for the whole of the work.



NEW CORN EXCHANGE, SHEFFIELD: FOR HIS GRACE THE DUKE O

E DUKE OF NORFOLK, E.M.—MESSRS. M. E. HADFIELD & SON ARCHITECTS.



Whiteman & Bass, *Photo-Litho* 236, High Holborn.

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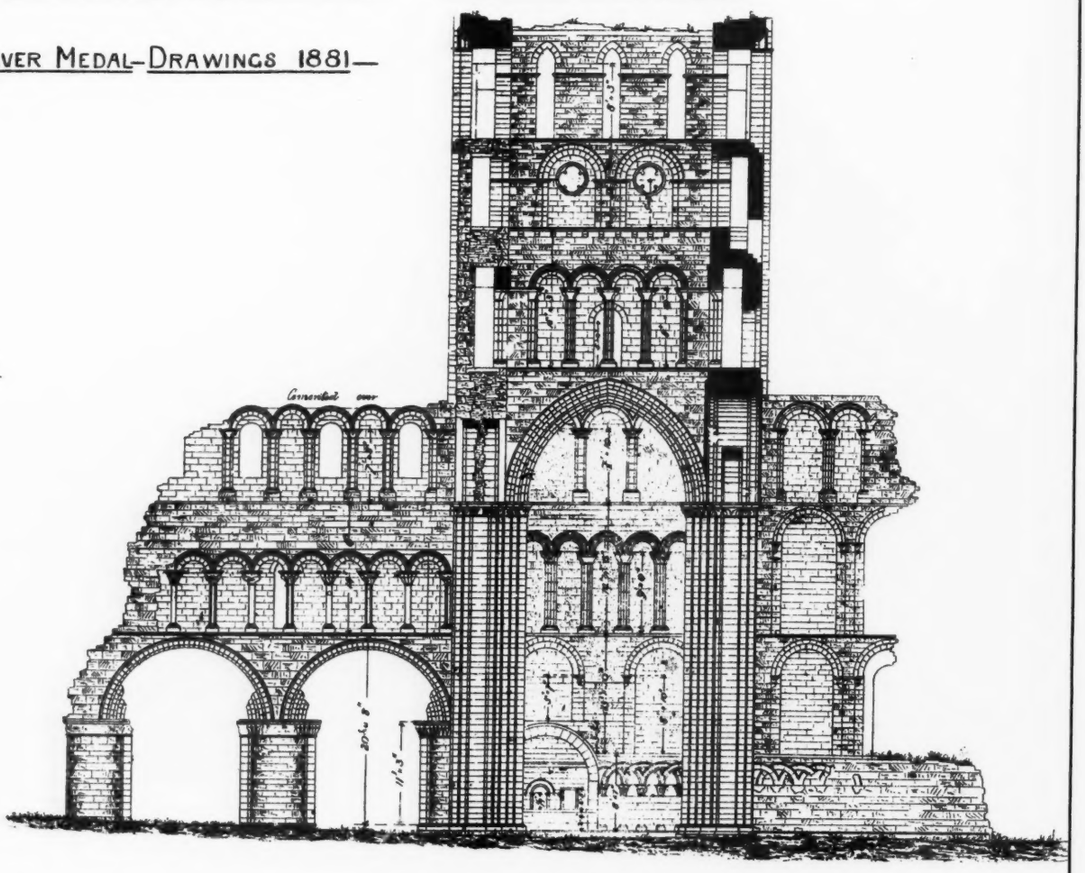
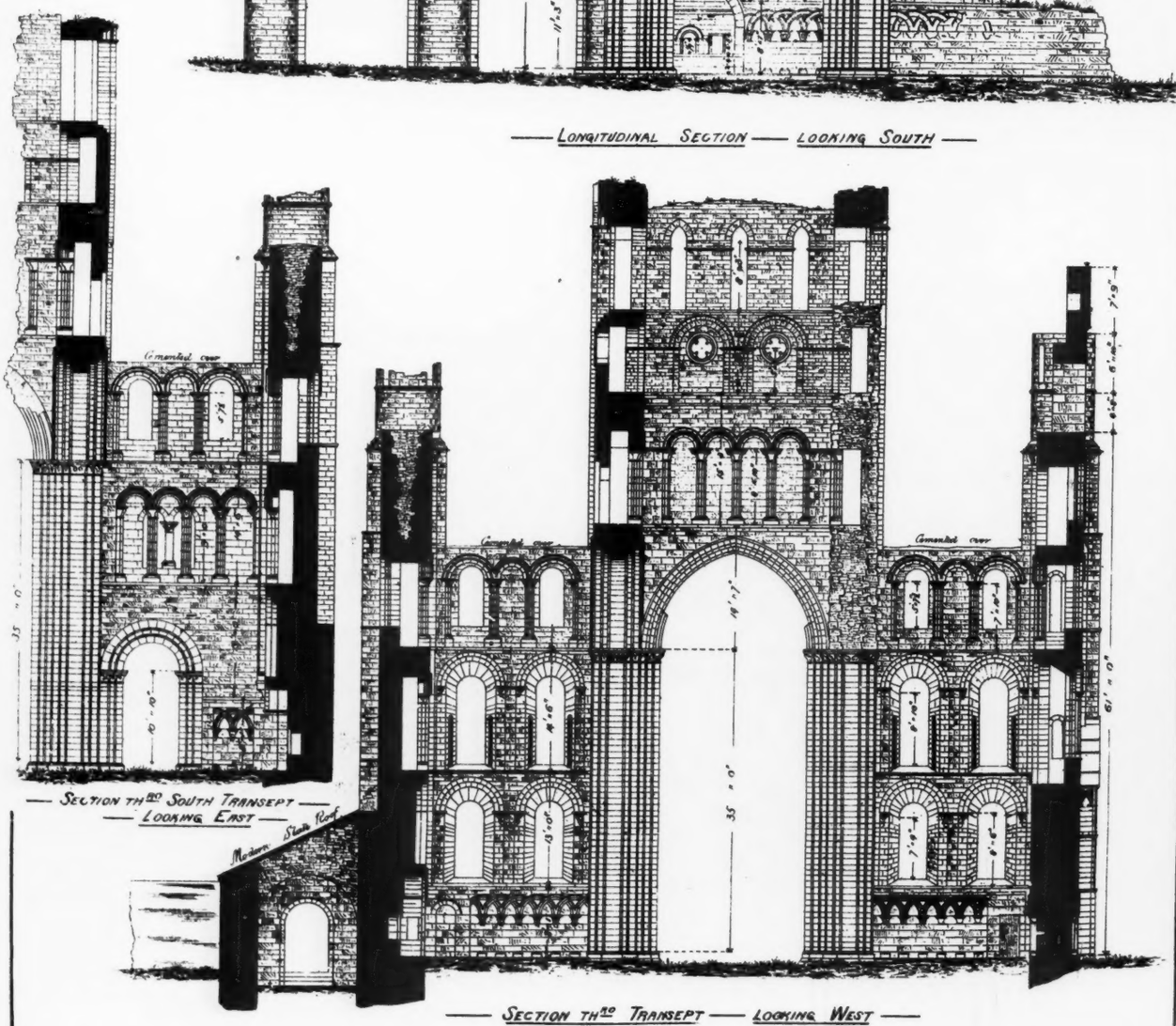
MESSRS. AGNEW'S ART GALLERY, LIVERPOOL.—MESSRS. SALOMONS & ELY, ARCHITECTS.

—ABBEY or ST MARY AND ST JOHN — KELSO SCOTLAND—

—R.I.B.A. SILVER MEDAL—DRAWINGS 1881—



—LONGITUDINAL SECTION — LOOKING SOUTH —



— SECTION THRO SOUTH TRANSEPT —
— LOOKING EAST —

— SECTION THRO TRANSEPT — LOOKING WEST —

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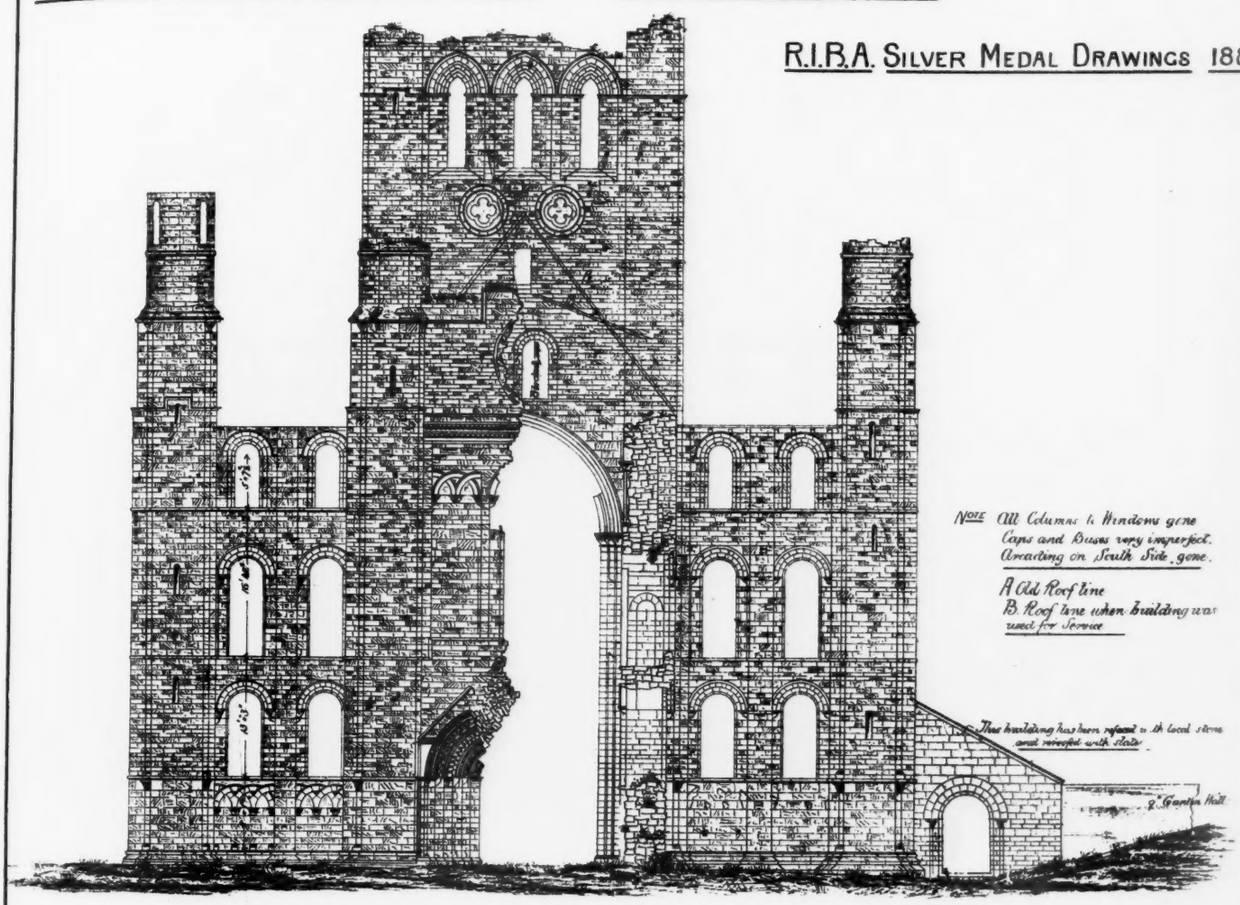
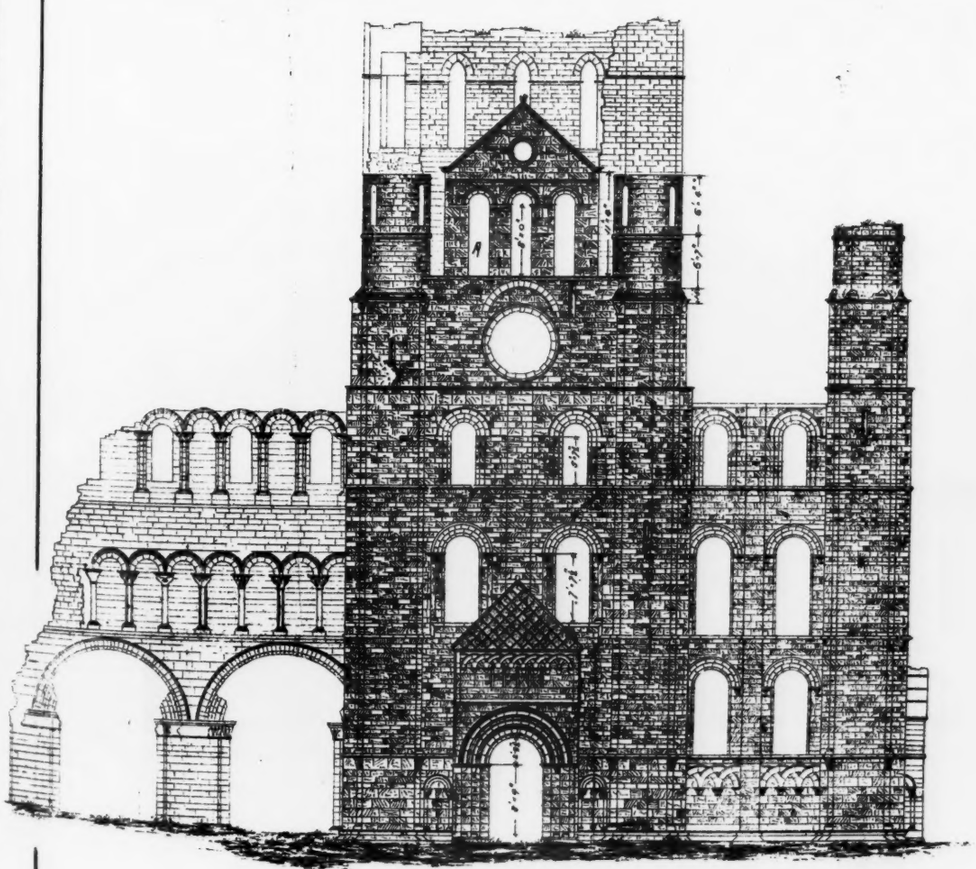
ABBEY OF ST MARY AND ST JOHN — KELSO SCOTLAND —

R.I.B.A. SILVER MEDAL DRAWINGS 1881



— WEST ELEVATION —



— NORTH ELEVATION —

Scale of Feet

Arthur Percy Cranston
1881

J. F. Kell, Photo-Litho., London, E.C.

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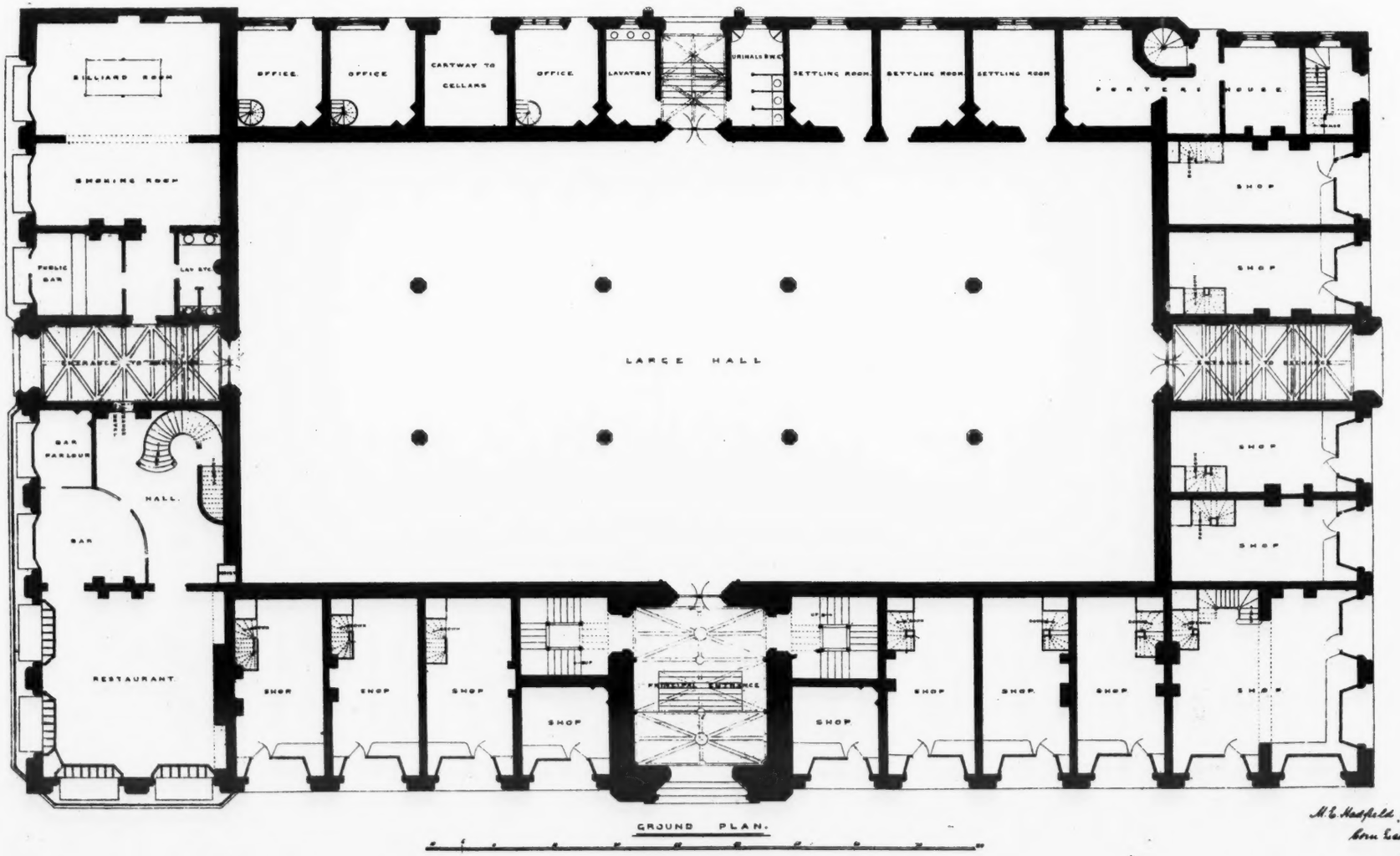

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NEW CORN EXCHANGE, ESTATE OFFICES, &c., SHEFFIELD, FOR HIS GRACE THE DUKE OF NORFOLK, E.M.

KELSO ABBEY.

Kelso Abbey, which forms the subject of some of our illustrations, was founded on the 2nd of May, 1128, by King David I. of Scotland, and was dedicated to the Virgin Mary and St. John the Evangelist. It was inhabited by a reformed class of Benedictine monks, originally established at Tiron, in Picardy. King David's only son, Henry, the heir apparent to the throne, who died at Roxburgh about the middle of June, 1152, was buried within the walls of the building. James III. of Scotland was crowned here in the month of August, 1460, with great pomp and ceremony, more than 100 knights being created to commemoraie the event. The monastery of Kelso is frequently mentioned in history as the place of meeting of the representatives of the kings of England and Scotland for the ratification of treaties and truces. The sacred building was twice burned, first during the contest that arose out of the rival claims of Bruce and Baliol for the Scottish crown; and in 1545, during the Earl of Hertford's invasion. It was never again rebuilt, but it was in all probability somewhat restored, as about twenty-one years later Queen Mary spent two days in Kelso, when she did no doubt take up her quarters at the Abbey. After the Reformation it was put into some sort of repair, and converted into a parish church, where the congregation continued to worship until the year 1772.

The ruin, as it stands now, is a fine specimen of Norman architecture. The form of the building was that of a Latin cross; the head of the cross, contrary to the general practice in ecclesiastical architecture, is turned towards the west, and the longest limb towards the east. The only parts which are still tolerably entire are the western end, which contains, among other features, a segment of a magnificent archway; the central tower, rising over the intersections of the cross, of which the north, south, and west sides remain; and the walls of the transept, with the northern entrance to this portion of the church. Of the eastern end, which seems to have consisted, when entire, of a choir and two side aisles, all that now remain is one of the walls which upheld the main roof, and separated the choir from the southern aisle. This wall rests upon two arches, with piers, and the superincumbent structure has within its thickness two tiers of galleries, one over the other, opening to the interior by a series of small round arches. In 1592 the lands and possessions of Kelso Abbey were conferred on Sir Robert Ker, of Cessford, whose representatives as Earls, and afterwards Dukes, of Roxburgh, have retained possession ever since.

A. P. Gunston.

THE NEW CORN EXCHANGE, SHEFFIELD.

This building, of which we give an illustration, has been in course of erection for about three years.

The new structure comprises a central hall for the use of the corn-factors, 150 ft. long and 75 ft. wide, and 35 ft. high. The roof, which is entirely of oak, is in five spans or sections, supported by stone pillars, having arched oak principals. This arrangement has been adopted to secure the steady north light so necessary for the corn-dealers, and, in addition to the sky-lights, there are five three-light windows in the eastern gables. There are four entrances to the hall, and the settling-rooms, lavatories, &c., are arranged on the eastern side of the hall. There will be space for 100 desks or movable stands on the floor of the hall.

The principal façade of the building, which occupies the site of the old Haymarket, is 225 ft. long, and the lateral elevations are each 135 ft. long.

A first-class commercial hotel, with ample accommodation, occupies the northern front. There are thirty-two bedrooms, spacious restaurant, billiard and smoking rooms, and private sitting-room. The offices are very complete, occupying the basement, with extensive cellarage.

Along the west and south fronts are spacious sale-shops, with mezzanine floors and basement, kitchen to each, the Dennett system of arched flooring being used throughout.

There is extensive cellarage under the central hall. The chamber-story is occupied as the Duke of Norfolk's estate offices, and there are also suites of offices to let.

The design, as shown in the illustration, is of the Tudor type, the materials being thin red bricks, with stone facings from a quarry on the estate, of a durable texture and warm colour.

All the roofs are covered with brindled Broseley tiles. In the centre of the west front is a gateway for the principal entrance, which is groined in stone, having a flight of ten steps to approach the hall. In the upper story is a fire-proof-room for all the muniments, plans, &c., of the estate.

It may be interesting to state that, the foundation being very unsatisfactory, it was necessary to underlay the whole with concrete, composed of five parts of broken stone and brick ballast to one part of ground Barrow lime, and the result is everything that can be desired.

The whole work was designed by Messrs. M. E. Hadfield & Son, and executed under their personal attendance, Messrs. Tomlinson & Sons being the contractors, and Mr. R. W. Payne the clerk of works.

The heating and ventilating arrangements are carried out by Mr. W. W. Phipson, C.E., and the carving throughout has been executed by Mr. McCulloch, of Kennington-road.

Messrs. Hardman & Co. have executed the wrought-iron gates and ornamental ironwork.

The cost of the building will be about 55,000*l.*

FRENCH AND FLEMISH GALLERY.

We can hardly say that the winter exhibition at this gallery, which opened last week, is of much interest, though, of course, it contains some good pictures. The work which is put forward as the prominent one, and which in regard to scale and elaboration is so, Brozig's "Une Fête chez Rubens," is disappointing. It shows the interior of the princely painter's house, a large room garnished with rich furniture and numerous paintings, and occupied by a number of guests, ladies and gentlemen, including portraits of various artists and other notabilities among the painter's contemporaries. Rubens stands in the centre of the groups, introducing two new arrivals to his wife, who sits near him. Among the group of ladies beside her is the reduced likeness of the face and head-dress of the "Chapeau de Paille," coming out very prettily among the less refined faces of the more Dutch type. The painting is rich and full in colour, but impresses us too much like a contrived grouping on a stage; and there is a want of incident for so many figures: a number of the personages seem not to know exactly what to do with themselves, and to be sitting there just to fill up the scene. The men and women are grouped together, respectively, on opposite sides of the room, in a manner which increases the somewhat "stagey" effect of the whole.

There is nothing stagey about the work hung opposite, De Neuville's painting of French troops "Setting Fire to a barricaded House at Villersexel, January 9th, 1871." The painting has the same characteristics of spirited action, realism, and truth of detail, which have characterised other works of the same class by this admirable painter of battle scenes. De Neuville does not ignore the heroism of warfare; on the contrary, he is one of the finest illustrators of it, for he gives it us without tinsel; but he shows the sadder and less effective aspect of the game of war also with terrible truth. He is, whether intentionally or not, a kind of Erckmann-Chatrian among painters.

There are two landscapes by Herr Heffner (6, 24), brilliant in their effect of light and perspective, but a trifle hard. Mr. W. H. Bartlett's "Neighbours" (46) is a realistic and not very refined painting of two young artists working in a room whence they have a view of the feminine occupant of the opposite rooms watering the flowers in her window. There is nothing in any of the figures to interest us, but the precision of local colour and detail, and the clear atmospheric effect, call for much praise. A little interior by the same artist, "Kept in" (49), has similar qualities in even more marked extent, and is an admirable little work. Herr Schloesser's old man engaged in tying "a troublesome tie" is an admirable bit of humour. M. Laugée's group, "La Veuve" (139) has interest and pathos, far more than a larger picture, "Orphans" (95), which is hung in a place of honour at the top of the room, and bears the name of R. Wylie; the tone is agreeable, but the faces are absolutely without modelling, and seem all cast in one mould. There are other paintings that are below what we used to regard as the standard of this gallery, — much belo. wDuverger, Chevilliard, and other old favourites in the gallery, are represented, and Windmaier and Munthe among landscape-painters; and we must not omit Miss Hilda Montalba's "Sorting Crabs on the Lagoon, Venice" (107), pleasant not only for good drawing, but rich and fine tone. Looking about for rising talent, we will mention that Miss H. L. Corkran shows good advance in No. 125, "A Normandy Peasant Girl."

AN ANCIENT ATHENIAN CHURCH AND SARCOPHAGUS.

A German archæologist, writing from Athens on the 16th ult., reports the discovery there of numerous remains of one of the earliest Christian churches of that city, together with a sarcophagus containing the skeleton of an ancient bishop, Clematios. In laying the foundations of a house at the foot of the Lykabettos, there were found, at a depth of 0·65 mètre, the traces of the niche of an altar and of a building belonging to the oldest Christian period of Athens. Among the objects found the most interesting are:—

1. Two postaments, square-shaped, with the basis of a column of the Ionic style. It is of Pentelic marble, of good workmanship, of the oldest Christian period. The height of the postaments is 0·70 mètre, and diameter 0·55 mètre.

2. Two cornered capitals of columns, with pillars of Pentelic marble and fine reliefs of the Christian era. The length is 0·77 mètre, breadth 0·45, and height 0·32.

3. Two portions of small capitals, also of Pentelic marble, 0·22 mètre high, with a cross and small reliefs of the Christian style.

4. A four-cornered decretal column of Pentelic marble, 1·15 mètre high, 0·45 broad, and 0·15 thick. This contained an inscription, which unfortunately has been for the most part erased by some tool used in stone-work. Two lines only (in Greek characters) are legible and run as follows:—"*epsēphisáto [he]x Areiou Pagou boulē.*" (The council of the Areopagus voted . . .) This column had evidently been brought from another part of Athens and employed with other materials in building a Christian church. The date of its erection, there is reason to believe, was during the reign of Constantine the Great. There are indications that the church was destroyed by fire either under Julian the Apostate (363 A.D.) or during the second invasion of the Goths under Alaric (396 A.D.).

From among the numerous pieces of marble, tiles, tablets, &c., here found, it is to be inferred that the edifice was of considerable size. It manifestly served as a common house of prayer, and stood on the churchyard and Christian burial-ground that existed at that spot in the first four centuries of the Christian era. This opinion is confirmed by the discovery of numerous Christian tombs there, and more particularly by the finding of a sarcophagus (on September 21st). This contained the remains of one of the first bishops of the city of Athens, although, until this discovery, his name was unknown. At a depth of 0·85 mètre the workmen, in digging, came upon a marble plate, which the house-proprietor had brought out and cleansed with great care. It was a white marble tablet, of good workmanship, with a smooth surface and an inscription. It was 2·30 mètres long, 1·06 wide, and 0·07 thick. About 0·04 mètre from the upper edge there are three Christian monograms inscribed on the tablet. The use of such abbreviations on Christian tombs was not customary till the period of the reign of the sons of Constantine the Great, 337 to 361 A.D. About 0·05 mètre below these three monograms stands a fourth, with the following clear inscription:—"*O en 'osiois episkopēsas Klēmatios*" (Clematios, the superintendent,—or bishop,—in sacred things). The letters of this inscription belong to the Roman-Christian period. They are precisely similar to those on a column erected in honour of the Roman Hipparchus Herculius at the expense of Plutarchus Nestorius, a Neo-Platonist who taught philosophy in Athens about the year 398 A.D. Unfortunately, the inscription just found contains no chronological mark. There is a little hole in the tablet, the object of which is not clear. After the tablet had been brought up by the workmen, they found beneath its original position a layer of stones or masonry of ancient date, to which the tablet had been attached by a thick layer of

mortar. All this having been removed, the hollow interior of the sarcophagus was come to where lay the skeleton of the former Athenian bishop. The length of the sarcophagus interior was 2·10 mètre, width 0·85, and depth 0·95. Of the four sides, one is cut out of the Lykabettos itself, while the other three are very strongly composed of tiles. Each tile is 0·40 mètre long, 0·30 wide, and 0·04 thick. The four sides were all covered with marble tablets, each 0·04 mètre thick. The sides were fastened together by bent nails, and nails were used to attach the sarcophagus proper to them. In this sarcophagus the excavators now found the remains of Bishop Clematios. His head was to the south, and his feet towards that part of the Lykabettos where the traces of the church altar had been found. The entire skeleton was covered with a layer of dust or clay 0·05 mètre thick. Only the lower portion of the skull was well preserved besides some of the teeth of the upper jaw. All the other bones were in a perfectly crumbling condition. It is strange that nothing else was found in the sarcophagus to denote that the deceased was a bishop; no ornament nor coin was there, such as those often found in the early Christian tombs opened in 1832. The bishop, however, appears to have been buried in his robes of office, as there were remains of colour on all the marble tablets. When Bishop Clematios lived is a question not easy to settle. But his date was probably soon after Bishop Pistos, of Athens, who attended the First Synod of Nicæa. Bishop Clematios flourished, therefore, either under the first successors of Constantine the Great, between 337 and 361 A.D., or a few years before the second irruption of the Goths in Athens. This conjecture as to the date is supported by a sarcophagus of an entirely similar character that was found a few years back in the catacombs at Rome, and which belongs to the year 355 A.D.

BUILDERS' BENEVOLENT INSTITUTION.

ANNUAL DINNER.

THE thirty-fourth anniversary festival of this Institution took place (as briefly announced by us last week) on the 3rd inst. at the Freemasons' Tavern, Mr. George Burt, J.P. (of the firm of John Mowlem & Co., and ex-Sheriff of London and Middlesex), President, in the chair, supported by about 280 friends of the charity. The usual loyal and patriotic toasts having been disposed of (Major Brutton and Captain Bird responding for "The Army" and "Reserve Forces" respectively),

The Chairman, in proposing the toast of the evening, "Success to the Builders' Benevolent Institution," said the Institution was founded in 1847 chiefly by his very old friend the late Mr. Thomas Cozens,—all honour to his name. Its object, as they all knew, was to grant pensions to master builders and their widows, and others connected with the building trades. The number of pensioners who had been assisted by it, exclusive of those now on the list, was 129, and there were at present 23 men and 30 women in receipt of annuities at the hands of the Institution. The average age of the men in receipt of the benefits of the Institution was 70, and that of the women 72, and the amounts of the pensions granted were 39*l.* per annum for the men and 27*l.* per annum for the women. Widows of pensioners retained their husbands' pensions during life. The pensioners must have been in good circumstances to make them eligible, and of the age of not less than sixty years,—and there was one applicant at the present time for the benefits of the Institution whose age was eighty-four. The average time that pensioners remained on the list after election was from seven to eight years. It would, therefore, be seen that the pensions granted by the Institution did materially soften the last years of the lives of the old people, and that the charity was one which was of great service. The pensioners had been at one time in good circumstances, but causes perhaps not their own had led them to seek the comparatively small pittances given by the Builders' Benevolent Institution, the support of which was the real duty of the builders of London. He was sure it was not necessary that he should say much in appealing to the company to support the Institution to the utmost of their power, for he had already appealed to them in connexion with Mr. Godwin's generous offer, with a result that had been very gratifying, and he heartily thanked the very numerous friends of himself and the Institution for the way in which they had rallied round him and come to his support on that occasion. He sincerely trusted that as years rolled on the friends of the Institution would be able to gather together and invest such a sum of money as to render them less dependent on the appeal made on the occasion of the anniversary dinner. He felt that it was the duty of the master builders of London to endeavour to enable the Institution to attain that position as speedily as possible, so as to enable the work of the Institution to be efficiently supported from year to year independently of fluctuations in the amount of support given to the chairmen at its annual dinners. Many of those present would know some who had been seeking the benefits of the charity, and some of those to whom he was speaking might some day stand in need of its aid. Surely, then, they should all do their utmost to increase the amount of the invested funds of the Institution. So far as in him lay, he would do his utmost to achieve that object, and he was sure that he might count on the hearty support of all the friends of the Institution.

The toast was received with enthusiasm.

The secretary then read the lists of subscriptions, the total of the chairman's list alone amounting to 1,074*l.* 7*s.* This included 105*l.* given by himself, 105*l.* given by Mr. Godwin, and 827*l.* given in ten guinea donations, about 630*l.* being given in response to Mr. Godwin's offer to give 100 guineas provided twenty donors of ten guineas each could be found. The grand total of subscriptions and donations announced was 1,436*l.* 7*s.* 6*d.*, a sum not equalled on the occasion of any previous anniversary of the Institution.

Mr. F. J. Dove, in proposing "The Chairman," said that among the many services which Mr. Plucknett, their valued treasurer, had rendered to the Institution, not the least was his successful persuasion of Mr. Burt to become the President of the Institution. Mr. Burt had eloquently advocated the claims of the charity, and his zeal in its cause was shown by the magnificent list of subscriptions. It was not the first time that Mr. Burt had assisted them on the like occasion. A few years ago, when he was occupying the exalted position of Sheriff of London, he very kindly came to their assistance. His presidency would be memorable in the annals of the Institution.

The Chairman, in responding, said he thanked Mr. Dove for the flattering terms in which he had mentioned his name, and the company for the way in which they had received the toast; but he had to thank them for something still better, viz., for the warm response which he had met with in reference to his appeal in connexion with Mr. Godwin's kind offer. Mr. Godwin had started the ball towards a good subscription, and he (the chairman) had done his best to keep the ball rolling, and he had been nobly assisted in that work by many of the gentlemen whom he saw around him.

Mr. Barfield proposed "The Vice-Presidents and Trustees," coupled with the name of Mr. T. F. Rider, who, in responding, said he had to speak in the name of 150 gentleman, many of whom had done good service to the Institution, while many others were still doing it, or hoped to do it, good service.

The Chairman, in proposing the health of the Treasurer of the Institution, Mr. George Plucknett, J.P., said that gentleman had been associated with the charity from its very foundation, and everybody knew the great services which he had rendered it.

Mr. Plucknett, in responding, expressed his gratitude for the handsome way in which the Institution had been supported on that occasion, for by the help of the liberal donations and subscriptions which had been announced the committee would be able to carry on the work of the Institution without anxiety during the coming year. When, a year or two ago, the friends of the Institution were pleased to say that the stipends of the pensioners should be increased, so that they might have a sufficient income from the Institution without seeking the aid of other charities, the committee felt that they had undertaken a great responsibility by so large an increase of annual expenditure as was involved by the change, and they felt that if the change was to be a permanent one it would be necessary to largely increase the amount of subscriptions and donations. Hardly had that change been entered upon, however, when, thanks to the energy of Mr. Rider, the President of the Institution last year, increased subscriptions and donations flowed in, so that the committee were able not only to pay the increased amounts of the pensions, but to elect three additional pensioners. Before he resumed his seat he should like to say a few words more than had been said with reference to Mr. George Godwin's generous help. He did not believe that there was any man living who had rendered such powerful aid to the Institution as Mr. Godwin. In years gone by, when its founders were struggling to put the Institution on a permanent basis, Mr. Godwin rendered them every possible service by advocating the cause of the charity in the press. They used to look, as their annual meetings came round, to learn what Mr. Godwin had to say about them, and he never failed them in coming to their aid with words of encouragement, and with the powerful advocacy of the journal with which he was connected. The *Builder* had ever been foremost in aiding the Institution. When Mr. Godwin heard of the proposed increase in the amount of the pensions he did not allow many hours to pass before he wrote offering to give a donation of 100 guineas to the Institution provided twenty other friends would give donations of ten guineas each. The result had been, thanks to the energy of the President, that instead of there being twenty responses to the offer, there had been sixty. As treasurer of the Institution he (Mr. Plucknett) could not sufficiently express his sense of indebtedness to the friends of the Institution for the magnificent subscription list which had been announced.

The Chairman, in proposing "The Architects and Surveyors," said that the builders owed much to the gentlemen of both professions. It was perfectly true that they (the builders) often found themselves completely in the hands of the architects, but, as a rule, those gentlemen performed their duties most properly and fairly. With the toast was coupled the name of Mr. Franklin, who, in responding, said he considered himself by no means an architect, although he did claim to be a surveyor. It was his decided conviction that the two professions were, and should be kept, entirely distinct, and he believed that that was an opinion which would be ratified by all builders.

Mr. Chappell, in proposing "The Committee and Stewards," spoke of the assiduity with which the Committee of the Institution attended to their duties, and coupled with the toast the name of Mr. T. G. Smith, who, in responding, said that as some illustration of the way in which the committee performed their duties, he might mention that when, at the beginning of the year, Mr. Fourdrinier offered to get up a theatrical performance in aid of the funds of the Institution, the committee at once guaranteed all the necessary expenses, and the result was that the entertainment brought in more than 100*l.* to the funds of the Institution. More recently, when the offer which had been referred to came before them, eleven out of the required twenty donations of ten guineas each were promised by members of the committee.

Before leaving the chair, the President announced that he had received several kind letters from friends of the Institution wishing him success on that occasion. One of them was from Mr. W. R. Rogers, of the firm of Cubitt & Co., who stated that when he was President of the Institution some years ago, his firm offered 100 guineas to its funds provided nine other firms would give the like amount each. Now, Mr. Chappell had consented to be the President of the Institution next year, and if that gentleman could find nine firms who would give 900 guineas collectively, his (the Chairman's) firm would give the tenth hundred guineas.

Mr. Chappell said he accepted that challenge with pleasure, and would do his utmost to be able to claim the fulfilment of the President's promise. Personally, he might say that he should not be backward in doing his part.

Surveyor, &c., Loughborough.—A meeting of the Loughborough Local Board was held on the 3rd inst. to appoint a surveyor and waterworks manager. Out of 136 applications, reduced first to twenty-one and then to six, three had been invited to attend, viz., 1, Mr. Frank Baker, Assoc. M. Inst. C.E., Waterworks Office, Sheffield; 2, Mr. William Matthews, Assistant Borough Surveyor, Peterborough; 3, Mr. Alfred B. Brady, Surveyor to the Dockwell Union and Hunstanton Local Board. Eventually Mr. Baker was appointed. The salary is 200*l.* a year.

RE TEWKESBURY ABBEY.

A LETTER from the Secretary of the Society for the Protection of Ancient Buildings, published in the *Times* in the course of last week, calls attention to a subject of complaint in regard to which we can concur with the Society. This is in reference to a reported intention on the part of the Restoration Committee to take out the large west window of Tewkesbury Abbey, to replace it, we presume, with a modern building up of what it is supposed may have been there in the Norman period of the abbey. If it is true that there is such an intention, we say, without hesitation, that it is a foolish and unjustifiable scheme. It may be the more advisable that we should add an opinion, as we can at least give a moderate and reasonable one, without the exaggerated statements with which, as usual, the Society's agents do much to discredit their own recommendations and to prevent many reasonable people from accepting their authority. The Secretary states in his note prefacing the communication, that this is an ancient fabric which has "already received irremediable damage at the hands of the restorer." This may be regarded as true by those who think it is doing "irremediable damage" to a church to scrape the whitewash off the walls and repair the interior stonework. At the time when the interior work was half finished, we drew attention to the contrast of effect between the still white-washed state and forlorn appearance of the nave, and the way in which the cleaning and repair had brought out the effect of the choir and transepts, and advised any one who was affected by the fulminations of the Society against repairing and cleaning a building to look on this picture and on that,—on the unrestored nave and the restored choir,—and say which state best represented the true architectural effect of the building. The painting and gilding of the bosses of the vault were coarse and tawdry in effect, but that is not "irremediable." Subjoined to the Secretary's letter above referred to was a long statement from "a competent member" of the Society as to the west window and its history. It would have been better to have stated who the member was, and we could then have formed our own opinion as to his competency. He gives a description of the window, not forgetting the inscriptions on the two tablets inside, giving the names of the clergy and churchwardens, and the builder, under whose reign the window was put in, at the date, as stated on one of the tablets, of 1686. The "competent member" does not believe that this is the date of the window, but of its repair, and asserts that it is "a fine and interesting window" with the stonework in a perfect state of repair, and that, "the design of this window being a very good one, and its state of preservation quite perfect, there cannot be even the shadow of excuse for destroying it."

Whether the "competent member" is only biassed by the usual determination of the Society to find everything to be of remarkable interest which it is proposed to pull down, or whether he is merely unacquainted with the characteristics of really "fine" late Gothic work, we cannot say, of course. We believe the date of 1686 may be open to question as the real date of the window, but there is nothing to make such a date impossible. The window is a weakly-designed specimen of the decadence of Gothic architecture, with thin and badly-designed tracery, and such as in "the books" used to be generally classed as "Debased Gothic," and it is quite possible that such a window might have been put in, as an expiring effort of Gothic, as late as the date inscribed. No one who knew what fine Perpendicular work was would think of calling it a fine window, and any one who went out of the way to look at it in consequence of being told so, would consider that he had been taken in. We consider it necessary to state this, because we are not going to implicate ourselves in the ideas of the "competent member" in regard to Gothic architecture, and we wish to take every opportunity of warning the public against accepting exaggerated statements. But in spite of this, we entirely concur in the opinion that to take out the window would be an act of sheer folly. It is in a way "interesting" historically, as showing what sort of Gothic was put in by churchwardens towards the close of the seventeenth century. In spite of its bad detail, it looks fairly well at a little distance. It has been associated for nearly two centuries with the grand west end of the building, and has become assimilated by time with the tone of the rest of the exterior; and, above all, if the Restoration Committee take it out, what are they going to put in its place? Modern Norman, we presume, to "match" the large arch. Well, the present window, poor as it is intrinsically, is at least worth far more than any sham Norman can be. It represents part of the latter history of the church, and has a continuity architecturally with what preceded it, representing one of the latest attempts of a decaying or decayed style. To remove it for the sake of putting up modern imitation work in its place would be an absurdity, and we strongly protest against it, without thinking it necessary on that account to exaggerate the architectural beauty of the window. Nothing is to be gained by doing that, except impairing the force of the recommendation to let it remain. But it is an old feature which has grown into its place, and, at all events, nothing that is likely to be put in instead of it will equal it in interest. We hope the Restoration Committee will have the sense to let well alone.

OXFORD UNIVERSITY.

NEW BUILDINGS, ADDITIONS, AND ALTERATIONS.

THE building operations in connexion with the University of Oxford during the last twelve months have been less numerous and extensive than in past years, but the following summary, abridged from the *Oxford Times*, refers to some very important and interesting works:—

The New Examination Schools.—Since October 1880 considerable progress has been made towards the completion of this pile. The hoarding having been removed from the High-street front, the façade may now be seen in its entirety. The architect is Mr. T. G. Jackson; the builder is Mr. Estcourt, of Gloucester; and the carving is by Messrs. Farmer & Brindley, of London. The building throughout will be warmed and ventilated by the hot-water apparatus of Messrs. Haden & Son, of London and Trowbridge, under the superintendence of Mr. John Rogers. The same firm have also constructed a similar apparatus in the new High School for boys.

The New Wing at Magdalen.—A new quadrangle is in course of formation on the space between the existing front and Magdalen School. The foundations have been excavated and laid in, and the walls have at present reached a height of nearly 5 ft., the jambs of the windows and the various doorways being in position. Eventually it is intended to construct three sides of a square, the fourth side being occupied by structures already standing, but at present only half of the original design is in hand. This portion includes the whole of the frontage facing south, in a line with the school and Magdalen Bridge, and half of the west wing, to be erected at right angles to it. This part of the building will include thirty "sets," besides lecture-rooms and Fellows' chambers. The front elevation is Late Perpendicular in style, in order to harmonise with the front adjoining. At the south angle of the new façade will be erected a tower harmonising with that of the founder in the centre of the west side of the cloisters, which will rise to some 80 ft. At the base of this tower the chief entrance to the new quadrangle will be constructed, the archway and groining of the roof being in harmony with those in the founder's tower; and above, on the first and second stories, oriel windows. The front extends about 200 ft. from east to west, and the west wing will extend about 114 ft. northwards. At either extremity the oriels will extend to the second story, and in the west wing those facing the interior of the quadrangle will be of similar design. The architects are Messrs. G. F. Bodley and T. Garner, of London. The contract for the portion of the work at present in hand has been let to Messrs. Franklin & Son, builders, Deddington; and the clerk of the works is Mr. G. Fitzwilliam.

Somerville Hall.—A large addition, nearly or quite equal in size to the original building, is being made to this institution, situate in St. Giles's-road West. The extension consists of a new wing at the south-east corner of the old building, with which it will be connected by a corridor, and the foundations are now being laid. The new structure, which will be of Handborough stone and red brick, with red tiled roof, will be 56 ft. by 24 ft., and three stories in height. On each floor a corridor will extend the whole length of the north side of the building, and will give access to four sets of rooms. The building will thus give accommodation for twelve additional students. Mr. T. G. Jackson, of London, is the architect, and the builder is Mr. Selby, of Oxford.

The Reredos in the Cathedral.—This work, which was finished last Term, has attracted many visitors. It consists of a centre panel and two flying arches, in each of which is an accessory figure, flanked by side panels, each containing two statuettes. The centre piece represents the Crucifixion. The style of architecture employed is ornate Perpendicular, with rich adjuncts. The dull red of the stone is relieved by the golden background, and the ornaments picked out with green and gold on either side of the groined canopy. The structure itself is in Dumfries red sandstone, and the figures are in Cipolino marble. The canopies over all three panels are rich and effective, and the embossing perfect in its character. Over the side canopies are embossed shields, bearing figures connected with the crucifixion. Richly-embroidered wings, in green and gold tapestry, by Watson & Co., of London, are hung at either extremity on gilt rods, while the super-altar is covered with similar materials. The architects of the reredos are Messrs. Bodley & Garner, and the clerk of the works was Mr. G. Fitzwilliam. It may be stated that the cathedral authorities intend to erect a marble font in the south transept.

St. John's College.—Part of the new scheme for the extension of this college is now nearly completed. The entire plan embraces the construction of a new quadrangle and dining-hall to the north of the existing buildings, with a frontage to St. Giles's-street of 152 ft., a north wing extending 164 ft., and an east wing 156 ft. The new hall will be 88 ft. by 44 ft. Three old houses on the south side have recently been demolished for a fresh addition on that side, but neither the plans nor arrangements for this part of the improvements have been completed. The portion of the new quadrangle which is almost finished, consists of a residence for a porter on the south side of the entrance gateway, Fellows' rooms over the entrance, and twelve suites for undergraduates. The noticeable feature is the gateway, which forms the basement of the tower, and the tower itself. Over the archway is a decorated niche with canopy, which is destined to receive a statue of St. John the Baptist, in whose honour the college was founded. The oriel windows above are simple, but effective. The tower is 66 ft. high, and finished off with an embattled coping. The new entrance-gateway is low-pitched and stone-groined, with ornamental panels. At the junction of the groinings are the arms of the architect, Mr. Geo. Gilbert Scott, F.S.A., and of the University, and Herodias bearing the head of the Baptist, the escutcheon of the college. The pitch of the roof of this wing is 46 ft. from the ground, and the subordinate features of the frontage are elaborately executed gargoyles with grotesques carved on the weather courses. Throughout this portion the spandrels of the doorways are ornamented and carved. The chambers are spacious and well-lighted, a speciality having been introduced in the grates so as to provide either hot air or ventilation, as may be requisite. The walls of the building are of brick, faced with Taynton stone, supplied from the quarries of Messrs. Groves & Pittaway. The sills, weather-courses, &c., are in Clipsham stone, supplied by Mr. Medwell. The roofing is of Colley Weston slating, supplied and laid by Mr. W. Close. Messrs. Boyd, of Maddox-street, London, have been entrusted to fix the grates and tiles, and Messrs. Burt & Potts supply the casements. The staircases of the building are in solid oak with ornamented balustrades, the floor-joists and roof-joisting of fir. Messrs. J. R. Symm & Co., of Oxford, are the builders, and the completed contract was let for over 9,000*l.*, but this forms but a fraction of the estimated cost of the new quadrangle when complete. Mr. Thos. Burton is clerk of the works.

Brasenose College.—One of the most extensive collegiate alterations that have been recently undertaken is the new quadrangle. It is intended to construct a pile of buildings extending from the library to High-street. At present, however, only part of the scheme is to be completed. The portion at present in course of construction is to occupy the area of what used to be known as "Amsterdam." The space available by the demolition of old cottages is about 170 ft. by 80 ft., and the building to be erected will measure about 150 ft. from north to south, and about 46 ft. from east to west. The buildings will include basement, ground, first, and second

floors. There will be accommodation for about thirty students, and the plan includes two large lecture-rooms, besides laundresses' offices, conveniences for scouts, &c. At present the workmen are engaged digging the foundations, and, in order to get a reliable hold, excavations averaging 20 ft. in depth have been made. A solid bed of concrete, 6 ft. thick, will be laid in, over which there will be a solid stone bed very nearly to the present ground level. Mr. J. G. Jackson is the architect. The clerk of the works is Mr. Thomas Mockford.

Lincoln College.—A new wing is being added to this college in what is known as "the Grove." The site extends from the dining-hall eastward to the back of Brasenose College, and at right angles, northward, to Brasenose-lane, the area being 90 ft. by 30 ft. The foundations are already in, and when the new buildings are complete there will be accommodation for sixteen students. The new buildings stand on the site of an old block in which there were ten sets, and will consist of three stories and basement, with the usual offices. The architect is Mr. T. G. Jackson.

NEW FIRE BRIGADE STATIONS.

Several new station buildings for the use of the Metropolitan Fire Brigade are now in course of erection, or are about to be commenced. The report of the Fire Brigade Committee, submitted to the meeting of the Metropolitan Board of Works on the 1st inst., notified the receipt of a report from the Superintending Architect of the Board (Mr. Vulliamy), stating that Mr. Mott, the officer in his department who had the superintendence of the Fire Brigade buildings, was in a weak state of health, and that a medical certificate had been produced to the effect that he required a few months' leave of absence to enable him to recover his health. The Committee were able to say from their own experience that Mr. Mott was an excellent officer, and that his services were valuable to the Board. They recommended that two months' leave of absence be granted to him, and they hoped that at the end of that time he would be able to return to his duties in improved health. During Mr. Mott's absence, his place would be filled by Mr. R. Pearsall, who, although only employed temporarily, and in receipt of 3*l.* 13s. 6d. a week, was stated by the Architect to be a thoroughly competent man. The Architect had also reported to the Committee with respect to the work in hand and in prospect connected with the Fire Brigade buildings, and from his report it appeared that it would be necessary to employ more persons on the work to enable it to be proceeded with more quickly. There were three stations in course of erection,—at Shadwell, Theobald's-road, and Lower Norwood. The new station which the Board had ordered to be erected in Scotland-yard, and the drawings of which were now nearly completed, would, it was hoped, be begun at the end of this year or the beginning of the next; and the drawings of the additional buildings at head quarters were about to be proceeded with. There were also in hand the drawings of the proposed additions to the Holloway Station. The Board had, moreover, ordered the erection of two new stations, on ground already purchased for the purpose, one at Kentish-town and the other in the northern part of the parish of Kensington, and it was desirable that these should be proceeded with as early as possible. In addition to these works, there was in prospect the erection of new stations in Bishopsgate, Bethnal-green, Stoke Newington, Camden-town, Regent-street, and Baker-street, all of these being required, though some of them sooner than others. Then, again, additions and alterations were required at many of the existing stations to make them adequate to the increased necessities of the Brigade; and at all the stations repairs were called for from time to time to keep them in good condition. It would thus be seen that a considerable staff was required to deal with the large quantity of work which the erection and maintenance of the Fire Brigade buildings involved; and the number of persons now employed was really insufficient for the purpose. There were six, altogether: Mr. Mott, who arranged and superintended the whole; Mr. Pearsall, a competent architectural designer, of whom, as stated, the Architect speaks highly; Mr. Nixon, who assisted Mr. Mott in the survey and superintendence of the alterations, repairs, and general works, and whose assistance was stated to be most valuable, his salary being 4*l.* 4s. a week; Mr. Estall, clerk of works, at 4*l.* 4s. a week; Mr. Brakspear, a draughtsman, at 2*l.* 10s. a week; and Mr. Hart, a junior assistant for general purposes, at 1*l.* 10s. a week. Quite apart, therefore, from Mr. Mott's approaching temporary absence, it was requisite that more persons should be employed on the Fire Brigade work; and after full consideration, the committee felt compelled to ask the Board to authorise them to employ temporarily, and not in an established capacity, an additional clerk of works at 3*l.* a week, and two additional draughtsmen at 2*l.* 10s. a week each, their engagements to be determinable by a week's notice.

The report was adopted.

THE TOWN-HALL AT ECCLES, NEAR MANCHESTER.

The new town-hall which has recently been erected for the Local Board district of Eccles, Barton, and Patricroft, at Eccles (the seat of the manufacture of the famous Eccles cakes), near Manchester, was opened on Friday evening last (Nov. 4), by Mr. J. T. Hibbert, M.P., the Parliamentary secretary to the Local Government Board. The building, which occupies a commanding position in the main thoroughfare, Church-street, is in the Italian style of architecture; the exterior elevation is of stock bricks with stone dressings, and is surmounted by an ornamental clock-tower. Perhaps the most imposing feature in connexion with the hall is the large assembly-room, which is on the first floor, and is about 90 ft. by 40 ft., and capable of seating 1,000 people; there are also a fine orchestral platform and three ante-rooms, the room being intended to be used for public meetings, balls, and other gatherings.

On the ground-floor at the front are the board-room and general "rate, &c.," offices, and on either side of a long encaustic-tiled corridor are the offices of the surveyor, the sanitary inspector, the members' ante or retiring rooms, clerks' offices, and several other rooms. There are ten rooms in the basement, where there is a cooking-kitchen amply provided with the requisite cooking-apparatus, "Leamington ranges," &c., and living-apartments for the hall-keeper, storage-rooms, &c.

It was originally intended that the tower should be composed of wood, but Mr. Robert Hall, a member of the Board, offered to supply the tower with a clock if it were built of stone, which was accordingly done, and the result is, thanks to Mr. Hall's generosity, a very fine clock with bells, which strike the hours and chime the quarters. The total cost of the building has been about 4,600*l.*, in addition to which about 500*l.* has been expended in furnishing and fitting the interior. The architect was Mr. John Lowe, F.R.I.B.A., of Mansfield-chambers, St. Ann's-square, Manchester, and the builders were Messrs. T. Moore & Sons, of Eccles.

ST. PETER'S CHURCH, VERE-STREET, OXFORD-STREET.

This church, of which the Rev. Wm. Page-Roberts, M.A., is the present incumbent, has been closed for about three months, during which time it has been painted and decorated and reseated in oak, with new carved oak pulpit, lectern, &c., and was re-opened on Sunday, November 6th. The whole has been designed by, and the work carried out under the superintendence of, Mr. James K. Colling, architect. The execution of the oak work and carving was entrusted to Messrs. Cornish & Gaymer, of North Walsham, Norfolk; the decoration to Messrs. J. & J. King, of Norwich; and the glazing of the side windows to Messrs. Pepper & Co., of the Euston-road.

The east window has been filled in with stained glass designed by Mr. Burne Jones, and executed by Messrs. Morris & Co.

The organ has been removed from the west-end gallery and placed in the north-east angle of the church. This has been done, and considerable improvements have been made in the organ, by Messrs. Hill & Son, organ-builders. The church has been lighted by two sun-lights, which were put up by Messrs. Strode & Co.

The church externally is a plain brick structure, of very unpretending appearance, but internally it is divided into nave and aisles, having an enriched plaster ceiling, supported on Corinthian columns. The architect of the building was James Gibbs, the architect of St. Martin's-in-the-Fields, to which church St. Peter's bears a considerable resemblance, although upon a smaller scale.

The carving has been specially designed by the architect, with natural foliage conventionalised to accord with the character and style of the building. In doing so, the type of work which has been followed in a great measure has been the oak carving of Grinling Gibbons. It should be understood that Grinling Gibbons carved in two styles,—one out of the solid oak in low relief, much of which was very beautiful and delicate in style, as may be seen in the stall-work of St. Paul's Cathedral; the other was carved in lime-tree, and fixed upon an oak ground, executed with most extreme relief, as seen in the panels above the stalls of St. Paul's, and in the reredos of St. James's Church, Piccadilly. To obtain this latter character no attempt has been made in the carving designed by Mr. Colling for St. Peter's Church, but all has been scrupulously carved out of the solid oak.

The total cost of the additions, alterations, and decoration has been about 2,000*l.* The result appears to us very satisfactory.

BIRMINGHAM ARCHITECTURAL ASSOCIATION.

The annual meeting of this Association, for the opening of session 1881-1882, was held on Tuesday evening last, the 8th inst., in the Library at Queen's College.

The President, Mr. Jethro A. Cossins, occupied the chair, and there was a good attendance of members and visitors, including Messrs. J. G. Bland, H. F. Talbot, G. F. Hawkes, R. B. Morgan, J. L. Ball, J. P. Osborne, W. Henman, T. Jones, W. Wallis, J. William Tonks, W. H. Kendrick (of West Bromwich), H. H. McConnal, and F. E. F. Bailey (of Walsall), Fred. G. Hughes (honorary secretary), &c.

The annual report and the balance-sheet were read and approved.

The President then delivered an address, in which he dwelt chiefly on the subject of street-architecture. At the conclusion, a hearty vote of thanks was accorded to Mr. Cossins for his excellent address on the motion of Mr. McConnal. Messrs. Morgan, Tonks, and Henman spoke in support of the motion, and, after the President had replied, the meeting terminated.

EXETER ON THE "FIFTH."

The fiery festival was kept up at the "Ever Faithful" city with all the usual honours. At seven p.m. the annual procession started from the head of St. Sidwell's, preceded by bands of music. It consisted of several hundred citizens dressed in quaint costumes and armed with blazing torches. The scene, as the train proceeded down the venerable High-street, was wondrously picturesque. Not only was the thoroughfare thronged, but every open window above was filled with smiling and cheering faces. Coloured fires burnt at intervals illuminated the old gabled buildings and threw a weird light upon the proceedings. On passing the ancient Guildhall, the Mayor (Alderman Pring) was loudly cheered by the populace. This annual carnival has been opposed by several preceding mayors, but the present one,—who is a jolly brewer,—has countenanced, rather than otherwise, the traditionary gathering. Upon arriving in the cathedral yard, the bonfire was lighted with much ceremony for the 285th annual time, the brass band the while playing the "National Anthem." This fire is always built upon one spot,—an open space immediately facing the west front of the cathedral, and close by the adjacent church of St. Mary Major. It consisted of 1,200 ash-faggots, ten tons of old railway sleepers, six tons of roots of trees, and thirty tar-barrels. The old cathedral never looks so sublimely grand as it does on these occasions.

Cauer's Witch.—The fine marble statue, called "A Witch," by Carl Cauer, which excited almost as much admiration as any piece of sculpture in the German division at the last Universal Exhibition at Paris, has just been purchased by the Prussian Government. The work will form a permanent ornament of the National Gallery of Berlin.

PATENT RECORD.*

APPLICATIONS FOR LETTERS PATENT.

4,609. J. Court, London. Appliances for ventilating, heating, and cooling. Oct. 21, 1881.

4,620. H. T. Dawson, Chiswick. Cistern-valves. Oct. 21, 1881.

4,638. F. H. Smith, London. Ventilation, &c. Oct. 22, 1881.

4,648. H. J. Haddan, Kensington. Tiles. (Com. by A. Vuillaumé, Blanquefort, France). Oct. 24, 1881.

4,656. T. H. Rees, Lambeth. Glass tile borders. Oct. 25, 1881.

4,662. E. P. Alexander, London. Apparatus for heating baths and greenhouses, &c. (Com. by C. Martin, Paris.) Oct. 25, 1881.

4,665. H. J. Haddan, Kensington. Doors and windows. (Com. by Favier-Simonet, Tourcoing, France.) Oct. 25, 1881.

4,692. J. Benson and T. Wainwright, Southport. Apparatus for excluding draughts and dust in doors and windows. Oct. 27, 1881.

4,698. R. Brealey, Westminster. Chimney-caps. Oct. 27, 1881.

4,707. J. H. Miles, Southampton. Window-sashes. Oct. 27, 1881.

4,712. C. Ezard, Bradford. Ash-pans. Oct. 27, 1881.

NOTICES TO PROCEED

have been given by the following applicants, on the dates named.

October 25, 1881.

3,292. A. Sclanders, London. Appliances for fastening doors and instantaneously releasing the same. (Com. by J. P. Black, Nelson, New Zealand.) July 27, 1881.

October 28, 1881.

3,447. W. G. Macvitie, Sutton Coldfield. Attaching door-knobs to their spindles. Aug. 9, 1881.

ABRIDGMENTS OF SPECIFICATIONS

Published during the Week ending October 29, 1881.

1,101. M. E. Dearnaly, Mirfield. Bricks.

A T-shaped or dovetailed recess is formed in the brick, and iron binders are used in double walls which correspond to this recess to bind the walls together. March 14th, 1881. Price 4d.

1,184. J. A. Berly, Peckham. Pipe-joints.

A ring, made of an elastic or compressible material, such as indiarubber, lead, &c., is used for the joint. This ring, in section, is of U-shape, and is placed in the joint with the concave part turned towards the pressure of the liquids, fluids, gases, &c. In the female flange of the pipe is hollowed out a cavity in which the ring is placed, and the male flange has a fore part, the end of which presses against the joint ring. Numerous modifications and adaptations for different pipes are shown. (Com. by L. Langlois, Louvain, Belgium.) March 18th, 1881. Price 8d.

1,210. J. Bernard, London. Baths, &c.

The bath is formed of the usual shape, but with a double shell. The space between the two shells serves as an air-heating chamber, so that the bath may be used as a Roman or Turkish bath. The air may be heated by steam or other method. A rotary brush as a shampooer and other fittings of a like nature are also provided. March 19th, 1881. Price 6d.

1,217. W. L. Hunt, Westminster. Apparatus for measuring and registering the flow of liquids.

The tap or cock is fitted with a plug which has a central chamber of a determined size, and two holes in its circumference to open and close the communication. The plug is connected by a toothed segment and ratchet wheel, with an apparatus to register the number of times it is turned. (*Pro. Pro.*) March 19th, 1881. Price 2d.

1,249. P. O'Connor, Wavertree. Taps or cocks.

The taper hollow plug has an aperture leading from the large end to one side, and the barrel has two openings at the sides, one in a line with the side opening of the plug, and the other beneath the wider end of the plug. The plug is held in position by a washer. No leakage, therefore, is allowed. Several modifications are shown. March 22, 1881. Price 6d.

1,252. J. W. Lewis, Halifax. Raising and lowering window-sashes.

On the outer side of each sash is a groove, and in the frame a corresponding groove, with worm-threaded racks, arranged so as to be capable of being moved laterally therein into the opposite groove in the frame or casing. At the back of the grooves in the frame a pair of vertical shafts, each with a worm and pinion, are affixed, together with a horizontal shaft and double-faced bevel wheel, so arranged that this wheel can gear into either of the pinions. By rotating the handles of the horizontal shafts, two of the worms are revolved, and the two corresponding racks becoming geared into these worms, the sash in connexion with them is caused to ascend or descend. In the case of wide windows, the handles may be connected by a link. March 22, 1881. Price 6d.

1,290. W. R. Comings, London. Bells, knockers, letter-plates, &c.

The bell is operated by clock mechanism, governed by an escapement. The spring is wound up by a lever connected with the bell-pull, and the reaction causes the bell-hammer to strike upon the bell. The bell-pull is carried through the door and letter-plate. All are placed together in the door. (*Pro. Pro.*) March 23rd, 1881. Price 2d.

1,293. J. Watson, Rotherham. Manufacture of kitchen ranges, &c.

The usual screws for securing the back and side plates together are dispensed with by casting on the edges of the plates hooks, which hold them firmly in position. (*Pro. Pro.*) March 23rd, 1881. Price 2d.

1,309. A. C. Henderson, London. Safety wicket and grating for street-doors.

A grating is let into the door from the inside, which is opened or closed by a second grating secured by a bolt. Beneath the grating is the aperture for the reception of letters. The lower panel of the door is movable, and turns on hinges for the reception of parcels, &c. The panel is secured by a bar which is formed in the shape of an axe for use if required. (Com. by J. M. A. Montclar, Paris.) March 24, 1881. Price 6d.

1,312. H. Massicks and W. Crooke, Millom. Hot-blast stoves.

An iron vertical cylinder, the top of which is conical and fitted with an air-valve, contains a series of concentric segmental passages, the walls of which are of brickwork. The gases to heat the stove are admitted from below to the centre of the stove, and caused to traverse all the passages alternately upwards and downwards before being carried off by the chimney. The air to be heated passes through in the opposite direction. March 24, 1881. Price 6d.

1,314. G. L. Shorland, Manchester. Ventilating apparatus.

An air-passage is formed from the bottom to the top of the building, and branches are led from each room to this shaft. The vitiated air is withdrawn through a passage in the ceiling, and suitable valves are used to prevent any down-draught. (*Pro. Pro.*) March 24, 1881. Price 2d.

1,338. S. Bee, Grantham. Apparatus for working the rollers of blinds, maps, &c.

A collar-nut is applied to the lower end of a spindle in such a manner that the nut communicates its rotary motion to the spindle, which carries a screw-worm geared into by corresponding appliances on the roller. (*Pro. Pro.*) March 25, 1881. Price 2d.

1,362. A. L. Tomkins, F. M. Courage, and F. A. Cracknall, London. Automatic regulation of heat in kilns.

A coil of mercury is connected with a receptacle covered with india-rubber. As the mercury rises or falls, the india-rubber, acting in connexion therewith, opens or shuts a valve which regulates the heat either by closing the air-channel or cutting off the gas. March 28, 1881. Price 4d.

1,380. W. E. Crowther, Manchester. Ornamental screens for fire-places.

The screen is composed of canes or other flexible reeds, which are arranged in an open ornamental pattern that will not interfere with the ventilation, but the screen at the same time can easily be bent or woven to the desired pattern or configuration. March 29, 1881. Price 2d.

* Compiled by Hart & Co., patent agents, 28, New Bridge-street, E.C.

ARCHITECTS' ACTIONS.

LANGSTON *v.* TRINITY COLLEGE, LONDON.

THIS was an action (Queen's Bench Division) for services rendered as an architect and surveyor. The defendants paid 21*l.* into court, which they said was sufficient to satisfy the plaintiff's claim.

The plaintiff, Mr. Alfred Langston, is an architect and surveyor, residing in Torrington-square, and the defendants are the authorities of Trinity College, London, which was established for the cultivation of church music and other purposes. The case for the plaintiff was that in January, 1876, he was employed by the Rev. Bonavia Hunt, the warden of the college, to prepare designs for the institution, and to look about for an eligible site. He accordingly prepared designs, which were accepted, and a perspective of the exterior of the proposed building was published in the College Calendar. Further, he entered into negotiations for a site, and selected and superintended the alteration and decoration of certain premises in Weymouth-street, which were temporarily occupied by the college. It was for remuneration for these services that the action was brought. The defendants admitted that the plaintiff was entitled to be paid for finding the premises in Weymouth-street and superintending the repairs and decorations there, and for this they paid 21*l.* into court. With respect to the design and the site, they said the plaintiff was employed subject only to his being paid for his services in the event of the design being carried out, and that, in fact, from want of the necessary funds, it was not carried out. It was agreed between the parties that if the plaintiff was entitled to recover under these heads, the sums should be 50*l.* for the design, and 10*l.* for services in connexion with the site, and the liability of the defendants for these sums was the only question in the case.

The jury found that the plaintiff was entitled to 60*l.* beyond the sum paid into court.

Verdict accordingly.

EVANS AND ANOTHER *v.* CARTE.

THIS case, which came before Lords Justices Baggallay and Brett in the Court of Appeal on the 9th inst., raised a question whether, if a plan for a building "goes off," the employer of the architect is liable to the surveyor employed by the architect to take out the quantities on the architect's plans.

The action arose out of the project of Mr. D'Oyley Carte, in 1880, of building the Savoy Theatre, and was tried before Mr. Justice Bowen and a common jury. The question left to the jury was whether Mr. Emden, the architect from whose drawings the quantities were taken, was acting under the authority of the defendant in giving instructions to the plaintiffs to reduce the quantities, which they had previously prepared, in order to get a reduced tender. The jury found that he was, and gave a verdict for the plaintiffs. A Divisional Court, consisting of three Judges, having discharged a rule *nisi* for a new trial, on the ground that the verdict was against the weight of evidence, the defendant appealed to this Court.

Their Lordships, without calling on the counsel for the plaintiffs, refused to interfere, and dismissed the appeal.

COMPENSATION CASES.

THE CORPORATION OF THE TRINITY HOUSE *v.* THE METROPOLITAN AND DISTRICT RAILWAY COMPANIES.

THIS was one of several heavy compensation cases arising out of the works lately taken in hand for the completion of the "Inner Circle" Railway. The case was tried on Saturday last before Mr. Under-Sheriff Burchell and a special jury.

The property in question is situate on the east side of Trinity-square, Tower-hill, and consists of several houses of which the claimants were the owners. Sir John Holker and Mr. Vaughan Williams appeared for the plaintiffs, and Mr. R. E. Webster, Q.C., and Mr. Graham, for the defendants.

Mr. T. Horsey (of the firm of Fuller, Horsey, Sons, & Co.), called by the counsel for the claimants, stated that the property consisted of 33, 34, 36, and 38, Trinity-square, No. 33 had a frontage of 16 ft. and an area of 993 ft., and was let on a lease at 90*l.* a year, expiring at Midsummer, 1894. He estimated it to be worth 150*l.* a year. He capitalised the rental on the 5 per cent. tables, making 2,430*l.* Nos. 34 and 36, on the opposite side of the mews, were houses with gardens; and as gardens were an anachronism in the City of London, he would let the sites as building land, and take 200 ft. from the roadway, which was wider than necessary. This would give 4,555 ft., but on 900 ft. buildings of only a ground-floor could be erected, as there were ancient lights to be preserved. He valued the 900 ft. at 1*s.* a foot, and 1,365 ft. at 2*s.* a foot. It was a very valuable site, easily accessible, and well lighted, and he capitalised it at twenty-four years and a half's purchase. He proposed to erect a warehouse containing 18,070 ft. of floor space, the rental value of which, at 1*s.* a foot, would be 900*l.* a year. The cost of the buildings would be, at 6*d.* a foot cube, 6,274*l.*, so that after paying 410*l.* a year ground-rent, the builder would still get 8 per cent. on his outlay. His valuation for these premises was 9,800*l.* No. 38 was a very substantial fine building, built by Cubitt in his best style, and occupied by Messrs. Morgan Brothers, wine merchants and shippers, and used to be the old Oporto House. It had an area of 2,293 ft., and was let on lease for 21 years, expiring at Christmas, 1884, at 150*l.* a year. This had also formerly a garden at the back, but it had been utilised for buildings and cellars by Messrs. Morgan, who had spent a considerable sum of money on the premises. At the expiration of the 3¾ years of the lease, the rental would be at least 300*l.* a year. He capitalised both rent and reversion on the 5 per cent. table, making 5,612*l.* The value of the easement of the roadway had to be calculated on the "rule of thumb." It contained 4,250 ft., which at 2*l.* a foot would be 8,500*l.* for the freehold; but as it was only an easement he put it at 1,000*l.* These four items together made 18,742*l.*, and he added 10 per cent. for compulsory sale, making 20,616*l.*

Mr. E. I'Anson, who was called as a witness on the same side, estimated the total value of the property at 19,897*l.*, or, with 10 per cent. for forced sale, 21,886*l.*

Mr. T. Chatfeild Clarke was also called for the claimants, and gave it as his opinion that the full value of the property, including 10 per cent. for forced sale, was 20,323*l.*

For the railway company, Mr. Alderman Ellis (now the Lord Mayor) was called. According to his view, the full value of the property was 11,825*l.*, which, with 10 per cent. for forced sale, amounted to 13,007*l.*

Mr. E. N. Clifton said the value of the property was 11,859*l.*, which, with 10 per cent. added, was 13,044*l.*

Mr. Edmund Farmer's total valuation was 13,266*l.*, being 12,060*l.* plus 10 per cent.

Mr. George Low valued the property at 11,755*l.*, or 12,930*l.* with the 10 per cent. added.

The jury gave a verdict for 14,559*l.*, including 500*l.* for the easement.

PUGH'S TRUSTEES *v.* THE METROPOLITAN AND METROPOLITAN DISTRICT RAILWAY COMPANIES.

THIS was a claim, in the Lord Mayor's Court, before the Recorder, Sir Thomas Chambers, Q.C., and a special jury, by Messrs. Edward Stuart Pugh and Charles Needs Weldon, trustees of the late Edward Pugh, against the defendant companies for compensation in respect of certain freehold property,—71, Great Tower-street, in the occupation of Mr. Godsell, wine merchant,—required by them under the compulsory powers of the Metropolitan and Metropolitan District Railways (City Lines and Extensions) Act, 1879.

Mr. Edward Clarke, Q.C., and Mr. Pollock were

counsel for the claimants; Mr. Bidder, Q.C., and another learned gentleman for the defendant companies.

The area of the land was agreed on both sides at 1,023 superficial feet.

In support of the claim, Mr. Bousfield (Messrs. Fox & Bousfield), Mr. Pryce (Messrs. Ellis & Co.), Mr. Buckland, and Mr. Vigers, surveyors, estimated the gross value, including a reversion under the will, to be about 13,000*l.*

On the part of the defendant companies, Mr. Alderman Ellis, Mr. Farmer (Debenham, Tewson, & Farmer), Mr. Whichcord, and Mr. Lowe, considered that something under 8,000*l.* was sufficient to satisfy the claimants.

The jury ultimately found a verdict for the claimants—Damages, 8,463*l.*

In the case of Middleton's Trustees against the same Company, and tried in the same Court, the property consisted of four houses in Seething-lane, five in Barking-lane, and three houses and a warehouse in Black Raven-court, City. Mr. M'Intyre, Q.C., M.P., and Mr. Gainsford Bruce were counsel for the claimants; Mr. Bidder, Q.C., and Mr. H. Sutton appeared for the Railway Companies. The valuations on behalf of the claimants were —Mr. C. Reilly, surveyor to the Drapers' Company, 36,828*l.*; Mr. E. l'Anson, Laurence Pountney-hill, 36,390*l.*; Mr. F. W. Porter, surveyor to the Clothworkers' Company, 34,885*l.*; Mr. E. Pryce (Ellis & Sons, auctioneers, Fenchurch-street), 36,828*l.*; and Mr. E. Fox (Fox & Bousfield, auctioneers), 32,325*l.* On behalf of the Railway Company the following estimates were given: —Mr. Alderman Ellis (Farebrother, Ellis, Clark, & Co., auctioneers), 17,050*l.*; Mr. J. Whichcord, architect and valuer, 16,955*l.*; Mr. Edmund Farmer (Debenham, Tewson, Farmer, & Bridgwater, auctioneers), 17,050*l.*; and Mr. E. N. Clifton, architect and surveyor, 16,055*l.*

The jury, after a brief deliberation, found a verdict for 23,143*l.*

DIAMONDS.

Sir,—I notice in the *Builder* of October 29th a statement as to the value of diamonds. Permit me to point out that the most valuable diamonds are not those which are entirely colourless, but those known to merchants as "blue-white." Of blue diamonds, the finest known is the "Hope," valued at 30,000*l.*, and which formed part of the collection of the late Henry Thomas Hope, esq., of Deepdene, and not Mr. Beresford Hope, as stated. This stone is in colour of a beautiful sapphire blue, and there are only three or four other diamonds known in Europe which can really be termed "blue."

The only known specimen of a *red* diamond is now in the hands of a great connoisseur residing in London. It weighs about three grains, and is valued at 800*l.*

The finest green diamond,—a pure emerald green,—is now the property of a West End merchant. It weighs about four grains. There is no other stone known at all approaching this for depth of colour. It is valued at 1,000*l.*

Diamonds that contain a slight tinge of colour are numerous, but have no special value.

Edwin W. Streeter.

*** We print Mr. Streeter's opinion, but against it we must set that of the learned authors of the book *àpropos* of which our remarks were made, who, in classifying diamonds, say, "*Diamants incolores*, très limpides, de la plus belle eau; ce sont les plus estimés, ceux qui donnent les pierres de haut prix."

IMPROVEMENT IN THE FIRING OF KILNS.

Sir,—Having read your article under the above heading, on page 541, I shall be obliged if you will allow me to point out, with reference to your remark, "In the best type of coal-fired brick-kiln hitherto constructed, a firing takes from forty-eight to sixty hours," that there is in use at the Harranden Brick and Tile Company's Hill Top Works, Harranden, a Cramp's patent brick-kiln, which consists of a series of six chambers, each capable of holding 10,000 bricks, and which is worked on the same principle as described by you. That is to say, as regards the utilisation of the heat, each chamber, containing 10,000 bricks, is burned in twelve hours, with a saving of 75 per cent. of fuel. These facts may be of interest to some of your readers.

For the Harranden Brick and Tile Co.,
Samuel Abbott.

The Fish Markets Question was revived at the meeting of the Metropolitan Board of Works on the 4th inst., when, by a much more decisive majority than at the previous meeting, the members voted against applying at present for Parliamentary powers to deal with the subject. On the previous day the Court of Common Council decided by a large majority to experimentally use the new Fruit and Vegetable Market (now nearly completed) as a market for railway-borne fish, subject to the sanction of Parliament.

WEST-END IMPROVEMENTS.

Sir,—I beg to offer for publication a suggestion as to West-end street improvements, which, both for convenience and ornament, is, I think, superior to the plan contemplated by the Metropolitan Board of Works, and which would probably not be more expensive. I propose to form a square between Regent-street, Great Windmill-street, and Piccadilly, and to continue the "Quadrant" from Windmill-street to the junction of Princes-street and King-street. I also propose to widen King-street, Crown-street, and Dudley-street, and remove the block of buildings at the junction of these streets. I would further propose to widen Wardour-street to the same width as Berners-street.

C. Roberts.

TESTING TRAPS.

Sir,—You will, of course, be cognisant that recently not a little discussion has taken place as to the value of the various closet traps, and that there are certain of them that I have advocated; also, that in furtherance of my ideas I have attended various experiments with a view of testing the actual value of each individual trap.

The result of these experiments I have duly reported, and as accurately as possible, but as some members of the trade seem to doubt (not improbably from some reason of their own) the accuracy of my reports, I beg now to inform them that on Saturday, November 19th, at three p.m., a committee of practical plumbers have arranged to meet and finally test the various traps. [See advertisement.] Any interested members of the trade can attend, and I trust that you will ventilate the matter as much as possible.

P. J. Davies.

Books.

The Imperial Dictionary of the English Language. By John Ogilvie, LL.D. New edition, greatly augmented. Edited by Charles Annandale, M.A. London: Blackie & Son. 1882.

The first volume just now issued of this new edition of a well-tried work is very satisfactory. The edition has been in preparation for above ten years, and may justly claim to be considered as substantially a new work. The augmentation which the vocabulary has undergone is so considerable that it will contain 130,000 separate entries.

As a literary dictionary it supplies a key to the written works in the language, by registering and explaining the various meanings which are or have been attached to words by writers both new and old.

The encyclopedic character of this dictionary adds greatly to its real usefulness as a book of reference, and, in conjunction with the numerous interesting quotations it contains, relieves it of the imputation common to dictionaries of being unattractive reading. In fact, it is nothing more than truth to say that, wherever it may be opened, the Imperial Dictionary presents something to interest and instruct,—some useful fact stated in concise terms,—some important maxim or sentiment in religion, morality, law, or civil policy; so that the charge usually preferred against English dictionaries, namely, that they furnish but dry sort of reading, will not apply to this dictionary.

The architectural terms, in common with others, are well illustrated. The work when completed will include 3,000 well-executed little woodcuts.

VARIORUM.

We have received a packet of serials from Messrs. Cassell, Petter, Galpin, & Co., all very good and cheap of their kind. The November number of the *Quiver* is the first of a new volume, and contains the commencement of a serial story, "Into a Larger Room," which begins very well. The *Quiver* is specially intended as a magazine for Sundays.——The *Family Magazine* is one of the best of its class at 7d., and may be safely recommended.——A popular issue, in one shilling parts, of "Picturesque Europe" has been commenced by the original publishers. It is a delightful work, and from first to last the same degree of excellence in the illustrations, on steel and wood, was maintained. The new issue will increase its popularity.——"Picturesque America," on the same lines, has reached its eighth number, and is richly illustrated.——"Cassell's Illustrated Almanac, 1882," for 6d., is a marvel of cheapness. The illustrations are excellent and numerous. —— "Gleanings from Popular Authors" will make an excellent half-hour book, and affords good subjects for readings. ——"Snow Time and Glow Time" is the title of "The Little Folks' Annual for 1882." It has plenty of good illustrations, and the letterpress is well calculated to please young people.—— The "Practical Dictionary of Mechanics," and "Cassell's Popular Educator," a revised edition, come also from the same enterprising firm.—— Never had the theatre so many frequenters in London as now, and never was there so much written of it, of a certain sort. The last addition to its literature is *The Play* (1, Kelso-place, Kensington), which gives weekly, for a penny, fair and sensible criticisms of new productions, and play-bills of all the theatres,—twenty-six. The number for November 3rd includes a touching poem, for recitation, 'titled "Drink," from the able pen of Mrs. Aylmer-Gowing.—— From the *Leisure Hour* office, 56, Paternoster-row, comes another pile of serials, all cheap, wholesome literature, with capital illustrations; the *Leisure Hour* itself, the *Sunday at Home*, and the *Cottager and Artisan*, a penny paper. The *Boy's Own Paper* and the *Girl's Own Paper*, from the same publishing office, are both well adapted to their purpose, and will be welcome anywhere amongst the young.——"Aunt Judy's Magazine" (Bogue) includes some charming writing and pretty illustrations. Our only objection is that some of the stories are a little over-sad. Why dash their bright spirits? Sorrow will come soon enough.——"Routledge's Christmas Number" is also intended for the young, and well fulfils its purpose. It includes eight full-page illustrations in colours.——In "Art and Letters, an Illustrated Monthly Magazine of Fine Art and Fiction," conducted by Mr. Comyns Carr (Remington & Co.), it is intended, if we understand rightly, to utilise some of the engravings given in the French journal *L'Art*. Under no other circumstances, probably, could so many excellent illustrations be given in the new venture at its present price. It promises to take a good place.——To remove from *L'Art* the more ephemeral portion of its usual contents, the proprietors have commenced the publication of a smaller journal, *Chronique de l'Art*, containing the art notes and current news heretofore printed in the former work, and which is sent gratuitously to its subscribers, while it can be bought separately by those who do not subscribe to *L'Art*. The number of serial publications in connexion with the fine arts is remarkable, especially if we look back to the bareness in this department of literature that existed when Mr. S. C. Hall first started the *Art Journal*, and the time it took to create a public for it. The good service done by this pioneer ought never to be forgotten, as it sometimes is.——*The Magazine of Art* (Cassell) for 1881, bound, forms a delightful book, whether for the eye or the understanding. It is impossible to open it at a page without finding something to interest. "The Homes of our Artists" makes a good feature in it. The two illustrated articles under this heading given in the present volume serve to show strikingly the splendour in which our distinguished countrymen, Sir Frederick Leighton and Mr. Millais, live and work. And, mind you, gentle youths, who are looking admiringly, perhaps a little enviously, on the magnificent apartments and costly surroundings here depicted, this is all the result, not of inheritance, not of mere luck, but of downright, resolute, and continuous hard work, developing original genius.

Miscellanea.

The Danger of Timber-covered Wells.—The danger to which the following refers is so little suspected, and yet, as is here proved, is so possible, that it deserves publicity. On the 2nd inst. as Vice-Chancellor Bristowe and Mr. Beckett (editor of the *Provincial Price Book*) were surveying an untenanted mansion in the neighbourhood of Crewe, an accident occurred which might have had more serious results. The Vice-Chancellor walked in the entrance-hall on a pump-well which had been covered with oak timbers, and looked perfectly safe, when the whole suddenly gave way under him, and he fell to the bottom. Fortunately, in falling, he obtained foothold on a cross-bearer some distance down the well, and, with Mr. Beckett's assistance, was able to sustain himself until further help could be obtained, when he was extricated from his dangerous position.

The Silicate Paint Company have received advice that their manufactures have been awarded the Gold Medal at the Adelaide Exhibition.

The Second Annual Food Exhibition, now open in the Agricultural Hall, contains much to interest everybody. There are a few matters of special interest to our readers. Messrs. Ashton & Green (Limited) exhibit a good collection of cooking-ranges, including the "Birmingham" and the "Phœnix Independent," but their chief novelty is their "Master" range (registered), which is a model of compactness, as will be seen when we state that the 36-in. size contains an oven 20 in. by 20 in. by 16 in., and a boiler to hold twenty-eight pints. It is a "close" range, and requires no setting. It needs but a small fire, and appears to be admirably adapted for use in blocks of artisans' dwellings and in the "back additions" of ordinary dwelling-houses. Messrs. Waygood & Co., besides some ingenious machinery for grocers' use, such as a gas-heated coffee-roaster and a mechanical sugar-chopper, show their patent self-sustaining lift, well suited for hotels, coffee taverns, factories, warehouses, &c. Their dinner-lifts are calculated to greatly facilitate the serving of food hot from the kitchen, and are deservedly coming largely into use. Messrs. Thos. Thomas & Sons, of Cardiff, exhibit their "automatic" self-sustaining lifts for various purposes. Of the great merits of these lifts we have spoken on previous occasions. Their "safety" hoisting crabs, cranes, and derrick winches, of which the handles cannot fly back, nor the load run down, are simple and ingenious. Turning the handles one way raises the load, turning them the reverse way lowers it. The load is always self-sustained, so that the handles may be left at any moment and will remain still. These appliances are eminently worthy of the attention of builders and others. Mr. E. S. Hindley, of Bourton, Dorset, exhibits horizontal and vertical engines and boilers, some of which supply the power for actuating the "Brush" electrical machines for lighting the hall. Messrs. F. Sage & Co. show by means of drawings what they can do in the way of shop fronts and fittings and show-cases. For excellence and variety of work of this kind this firm enjoys deservedly a high repute.

Middlesbrough. — Building operations in Middlesbrough, according to the *North-Eastern Daily Gazette*, have recommenced, — a very striking and hopeful indication of the change which has been steadily going on for some time. Mr. Almgill is erecting a small block of cottages in the Borough Field; Mr. Johnson has two houses on the way in Grange-road; a valuable block in Grange-road, which has been standing for years, has passed into new hands, and is now being completed; Mr. T. Imeson is erecting two spacious villas at the Albert Park, and is completing two others on the Linthorpe Estate; some progress is being made at Swatters Carr; foundations are being "dug out" in Union-street; and in three or four other instances land has been purchased or laid out with a view to its being utilised for workmen's dwellings. There are still empty houses in Middlesbrough, but the chief cause of this is that they have been allowed during the protracted depression in trade to fall into a state of dilapidation which renders them unfit for human habitation. Although it will take a long time to restore property in Middlesbrough to anything approaching its once reputed value, the contrast between the present and not very distant past, when there were some 3,000 empty houses there, is striking, and thus far satisfactory.

Smoke Abatement Exhibition.—At the meeting of the committee on Tuesday, at 44, Berners-street, it was announced that the Society of Arts had resolved to add, to the other prizes offered in connexion with this exhibition, a special medal to be given in the name of their Society, and Lord Alfred Churchill was nominated to act with the committee. It was reported by the hon. secretary (Mr. Wm. R. E. Coles) that the arrangements for completing the exhibition were being pushed on as fast as practicable, and that the applications for space were in excess of the amount at present available, and that fresh room would, if possible, be made for certain exhibits of special interest.

Houses in Bristol. — According to the returns of the rate-collectors, there are about 33,000 occupied houses in Bristol, and over 6,000 unoccupied.

Shutters.—Messrs. Salmon, Barnes, & Co., of Ulverston, have fitted up their patent iron balance-weight shutters to the new bank in Baker-street.

New Municipal Buildings at Launceston have been opened. The style of architecture selected by the joint architects (Messrs. Hine & Odgers, of Plymouth, and Mr. Otho B. Peter, of Launceston) is sixteenth-century Gothic. There is a central castellated tower, 15 ft. square and 60 ft. high, and a circular clock staircase at the south-west angle, leading to two rooms and a clock-chamber. From the tower a corridor on the left leads to the council-chamber. Its internal measurement is 20 ft. by 30 ft., and so far it is the largest room in the building. It has three three-light windows in the north wall, and one in the east wall. The former are filled with cathedral glass, and the latter, which is at the head of the chamber, is of stained glass, the subjects being the coats of arms and mottoes of past mayors of the borough. The centre piece is the Launceston borough arms, dated 1573, the date of the last charter. The carving has been done by Mr. Harry Hems, sculptor, of Exeter, in red Corsehill stone, from Dumfriesshire. It is surrounded by the arms of the most distinguished mayors. The window is by Messrs. Fouracre, of Plymouth. In addition to the council-chamber there are two committee-rooms, 14 ft. by 18 ft., a passage by the side entrance dividing them from the main room. Above these two committee-rooms is a large chamber, in which it is intended to fit up a local museum. There are also porters' rooms and lavatories. The walls are of local stone, from many different quarries. Mr. Congdon, of St. Stephens, was the builder. As soon as the funds can be obtained it is proposed to complete the buildings by erecting a large hall.

New Museum, Free Library, and School of Art, Stafford.—The new building erected by the Corporation of Stafford, from designs by Mr. J. B. McCallum, the borough surveyor, for the purposes of a museum, free library, and school of art, was formally opened on the 3rd inst. The building is situate in Eastgate-street, and adjoins the Borough Hall, being entered by the passage at the end of the hall, and having an internal communication with the corridor of the Assembly-room. It covers an area of about 225 square yards. The library and reading-room occupy the ground-floor, and the first-floor is taken up by the Wragge Museum, leaving the second floor for the art and science school. The dimensions of the rooms are 37 ft. by 37 ft. The frontage is composed of red brick, with ornamental designs in terra cotta, supplied from the Brereton works of Mr. Arthur Gee, of Stafford, the contractor. The work, which includes some scrolls and medallions in terra cotta, has been completed by Mr. A. Gee at a cost, exclusive of site, of 2,000*l*. The total cost was estimated at 3,000*l*., which is made chargeable upon the borough fund, the penny free library rate being only available for working expenses.

London and Middlesex Archæological Society.—The session of 1881-82 will commence on Monday, the 14th inst., when a paper will be read by Mr. Edwin Nash, F.R.I.B.A., entitled "Some Archæological Notes in Middlesex." The evening meetings will be continued as usual from November to May inclusive, and the following members have promised to read papers:—Mr. C. R. Rivington, "On the Registers of the Stationers' Company." Mr. H. B. Wheatley, F.S.A., "On the Site of the Adelphi." Communications are also expected from Alderman Hanson, F.S.A.; Mr. Wilfrid Cripps, F.S.A. (author of "Old English Plate"); and other members of the society. The "History of Monken Hadley," by the Rev. F. C. Cass, M.A., will be ready for issue almost immediately.

The late Mr. John Crawley.—We are glad to hear that the practice of the late Mr. John Crawley, of Bloomsbury-square, has been taken over by Mr. Joseph Stanislaus Hansom, F.R.I.B.A., of Alfred-place West, South Kensington, on terms of advantage to Mr. Crawley's family. Mr. Crawley was latterly engaged on the new Roman Catholic Church at Portsmouth, two churches at Brighton, and other important works. He had in progress also plans for a new cathedral at Hong Kong, which has been unavoidably delayed by his illness and death; but they are now being pushed on by Mr. Hansom.

"Victory over Sewer Gas." — We have received another letter from Mr. Cosmo Innes on this subject, but cannot find space for it. The matter is fully before our readers, and they can judge for themselves. A correspondent who writes admiringly of Mr. Mineard's system must accept the same reply.

The Building Exhibition, 1882.—This, the third Building Exhibition held at the Agricultural Hall, will be opened on March 20th, and remain open until the 1st of April. It will be under the same management as the previous exhibitions, and bids fair to continue the success already achieved. Applications for space should be sent to the Secretary and Manager, Mr. John Black, 161, Strand, without delay, for we are informed that more than three-fourths of the area of the hall have been already allotted to intending exhibitors.

Wilmington, Kent.—A new south aisle and heating-chamber have just been added to the parish church, and were opened on the 26th ult. Messrs. Naylar & Son, of Rochester, were the contractors; the architect being Mr. W. G. Bartleet, of New Broad-street. The total cost of the works has been about 1,600*l*.

Stoke.—The Stoke Town Council have resolved to purchase twenty-one acres of land in front of the infirmary for a cemetery, which the town will shortly require. The estimated outlay is rather under 5,000*l*., exclusive of chapels.

TENDERS

For stables and Coach-house, Jay's-mews, Kensington-gore. Mr. Basil Champneys, architect. Quantities supplied:—

Coles	£1,287	0	0
Higgs & Hill	1,284	0	0
Lascelles	1,266	0	0
Sawyer	1,253	0	0
Hobson	1,196	0	0
Adamson	1,187	0	0
Bywaters	1,183	0	0

For repairs and alterations to the Horse and Trumpeter public-house, Nottingham. Mr. Frederick Jackson, architect. Quantities supplied by the architect:—

G. Bell & Son, Nottingham	£1,086	0	0
Woolf Brothers, Nottingham	1,050	0	0
William Bailey, Nottingham	997	0	0
Marriott & Wartnaby, Nottingham	830	0	0
Samuel Hind, Nottingham	800	0	0
Enoch Hind, Nottingham	772	10	0
Bradley & Barker, Nottingham	745	0	0
R. Middleton, Nottingham*	730	0	0

* Accepted.

Accepted for plumber's, plasterer's, slater's, and iron-founder's work, Carlisle Grammar School. Messrs. Hetherington & Oliver, architects. Quantities by architects:—

W. Anderson, plumber	£679	10	0
T. Nanson, slater	485	0	0
Stanfield & Son, ironfounders	482	10	3½
R. M. Ormerod, plasterer	397	0	0

For building two houses in North-street, Stepney, for Mr. Romain. Mr. C. A. Legg, architect:—

Elves	£425	0	0
Croft	400	0	0
Judd	397	0	0

For alterations, repairs, and additions to No. 10, Claremont-square, N., and for additional buildings in rear, for Dr. Abercrombie. Mr. A. J. Beesley, architect. Quantities supplied by Mr. Henry Nutt.

Allen (accepted).

Accepted for alterations and fitting-up of premises, 6, Russell-street, Leek, for the Leek Liberal Club. Messrs. William Sugden & Son, architects:—

T. Grace (Contract 1)	£189	10	0
J. & J. Matthews (Contract 2)	136	0	0
J. Heath (Contract 3)	67	0	0

For new branch bank buildings and manager's house at Leek, for the Manchester and Liverpool District Banking Company, Limited. Quantities supplied. Messrs. William Sugden & Son, architects:—

Samuel Warburton	£6,827	0	0
Richard Bradbury	6,774	0	0
John Wharton	6,772	0	0
Southern & Sons	6,660	0	0
H. & R. Inskip	6,485	0	0
J. Massey & Sons (accepted)	6,375	0	0

For the erection of stabling at Kilburn, for Mr. J. Griffiths. Mr. W. Graves, architect:—

Ward & Lamble (accepted).

For decorations and boundary walls to Yoroshi House, Woolwich, for Captain Skinner, R.A. Mr. W. Graves architect:—

Ward & Lamble (accepted).

For the erection of stabling and coach-house in the Edgware-road, Brondesbury, for Mr. J. Currom. Mr. W. Graves, architect:—

Ward & Lamble (accepted).

For the erection and completion of refreshment-bar and waiting-room adjoining the Staines railway-station yard, for Messrs. Charles Ashby & Co. Mr. E. Saunders, architect:—

Joseph Higgs, London (accepted).

For additions and alterations to the Nag's Head public-house, Sunningdale, Berks, for Messrs. Charles Ashby & Co. Mr. E. Saunders, architect:—

Joseph Higgs (accepted).

For alterations and repairs to the Bridge House Hotel, Frimley, Surrey, for Mr. T. F. Harris, Staines. Messrs. Low & Birch, architects:—

Joseph Higgs (accepted).

For the erection and completion of locomotive workshops, two blocks of workshops and one block of offices, for the Metropolitan Railway Company, at Neasden. Mr. J. Tomlinson, jun., architect. Quantities by Mr. A. R. Brede:—

W. J. Botterill	£31,842 0 0
F. Higgs	28,550 0 0
J. Kindell	27,489 0 0
W. Crockett	27,243 0 0
B. Cook & Co.	26,700 0 0
Mattock Bros.	26,546 0 0
Perry & Co.	26,447 0 0
J. Garlick	26,290 0 0
H. Lovatt	26,205 0 0
E. Dawson	26,114 0 0
W. Rigby	25,950 0 0
C. Claridge	25,514 0 0
Vernon & Ewens	24,997 0 0
B. N. Smith	24,838 0 3

For the erection of twenty houses in Gordon House Lane, Highgate-road, for Mr. J. M. Goodall. Mr. H. H. Bridgman, architect. Quantities by Mr. Frederick Thomson:—

		If basements are omitted in first four houses.
Nightingale	£14,881 0 0	£14,711 0 0
Dove Brothers	14,475 0 0	14,395 0 0
Merritt & Ashby	14,463 0 0	14,303 0 0
Burman	14,452 0 0	14,280 0 0
Crockett	13,800 0 0	13,800 0 0
Morter	13,650 0 0	13,548 0 0
Manley	12,945 0 0	12,685 0 0
Gould & Brand	12,890 0 0	12,740 0 0
Tarrant & Son	12,873 0 0	12,741 0 0
Richardson Brothers	12,768 0 0	12,656 0 0
Paramor & Son, Margate	12,740 0 0	12,630 0 0
Kirk & Randall	12,700 0 0	12,600 0 0
Perry & Co.	12,689 0 0	12,589 0 0
Shurmur	12,573 0 0	12,501 0 0
Wall Brothers	12,475 0 0	12,347 0 0
Scrivener & Co.	12,368 0 0	12,232 0 0
Drew	12,340 0 0	12,234 0 0
White	12,190 0 0	12,074 0 0
Dixon	11,835 0 0	11,754 0 0
Toms (accepted)	11,827 0 0	11,689 0 0

For six detached villa residences in the Lansdown-road, Ashburnham Estate, Bedford, for Messrs. Hawkins & Ashwell. Mr. H. H. Bridgman, architect. Quantities by Mr. F. Thomson:—

Thos. Spencer, Bedford (accepted) £6,683 5 0

For a detached villa residence in The Oval, Ashburnham Estate, Bedford, for Messrs. Hawkins & Ashwell. Mr. H. H. Bridgman, architect:—

Thos. Spencer, Bedford (accepted) £1,241 0 0

For pulling down and rebuilding the premises, No. 10, Finsbury-square, for the "United Kingdom Assurance Corporation, Limited." Mr. Frederick Hammond, architect. Quantities not supplied:—

Dove Brothers	£4,055 0 0
Prescott	3,250 0 0
H. L. & R. Roberts	3,083 0 0
J. H. Johnson (accepted)	2,497 0 0

For rebuilding Nos. 9 and 10, Tokenhouse-yard, Lothbury, City. Mr. R. E. Tyler, architect. Quantities by Mr. Barnett:—

Green	£8,389 0 0
Colls & Son	8,152 0 0
Clarke & Bracey	7,959 0 0
Wilson & Exton	7,787 0 0
Patrick & Son	7,785 0 0
McLachlan & Sons	7,678 0 0
Nightingale	7,584 0 0
Grover	7,547 0 0
Merritt & Ashby	7,547 0 0

For completion of two houses at Crouch-hill. Mr. Walter Stair, architect. Quantities by Mr. H. J. Kirk, surveyor:—

Gladwell	£973 0 0
Peck	840 5 0
Legers	840 0 0

For the erection of street portion of the new factory buildings on the premises of the Old College Ironworks, St. Alban's, for Messrs. John Freshwater & Company (Limited). Mr. Bertram A. Raves, architect, Welwyn. Quantities by the architect:—

J. & W. Savage, St. Alban's	£733 0 0
C. Miskin, St. Alban's	680 0 0
W. Carlin, St. Alban's	668 10 0
J. Mead, St. Alban's	657 0 0
G. Capper, St. Alban's (accepted)	570 0 0

For alterations to shop at Canning-town. Mr. Walter Stair, architect:—

McLean	£1,510 0 0
Cawthorne	1,450 0 0
Hail	1,310 0 0
Gladwell	1,200 0 0
Clark	1,170 0 0

For engineering works in connexion with the laundry and bath-house, &c. at the Kensington and Chelsea District School, Banstead, for the Managers. Messrs. A. & C. Harston, architects:—

Benham	£1,265 0 0
Clements	1,250 0 0
May	1,080 0 0
Bradford & Co., High Holborn*	994 10 0

* Accepted.

For the erection of a "Mission House" at St. Leonard's-road, Bromley, Middlesex, for Miss Emily Currie. Messrs. A. & C. Harston, architects. Quantities supplied:—

Smith	£800 0 0
Atherton & Latta	745 0 0
Walker	738 0 0
Holland	723 0 0
Carpenter & Poole, Pentonville	697 0 0
Ditto, reduced to and accepted at	653 0 0

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